#### TIMELINE OF MOTOR CYCLING

# **Volume Eight 1935-1939**



Compiled & edited by Dave Richmond

### Compiled, edited and written by Dave Richmond motorcycletimeline.com

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Murray Barnard

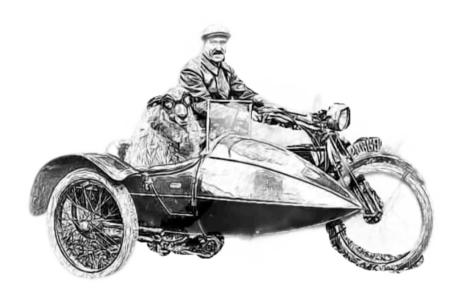
Perth, Australia

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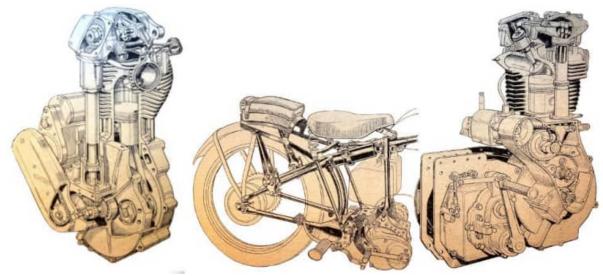
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The Blue 'Un's technical guru, Ubique, "Discusses the Improvements He Likes Best on Modern Machines, and Looks Forward to a Motor Cycle that Will Combine Speed, Comfort and Silence...

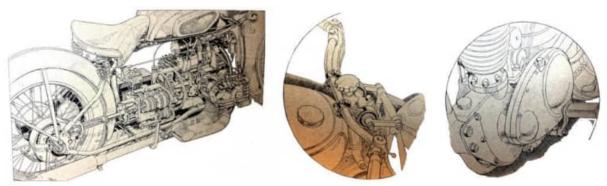
"IF YOU WERE ASKED what features you liked best on existing motor cycles, would you know where to begin? I am in that very position—I like so many things, great and small, that I have not a notion where to start. Those who are accustomed to my scribblings will expect to to have something to say about multi-cylinder engines and unit construction, so I will begin there, and get it over. My first choice would be a multi, and by that I mean something with more than two cylinders. We have two 'fours' on the market, and I like them both. Yes, I know my tastes are expensive, but that is a common failing with mankind. I like four-cylinder engines because they are smooth, quiet, fast, and accelerate wonderfully These are not just theories, for I have owned one of the two and ridden the other, and I have owned a third type which is now only built to special order. Next to the four I like a twin, preferably a flat twin because of its even firing and good balance. The mention of flat twins reminds me that there is a flat twin on the market with unit construction and shaft drive. Unit construction is one of my pet hobbies, because it leads to a neat, lighter, and more rigid unit, which can be just as accessible as a two unit job—vide New Imperial. I am all for unit construction, and, on



L-R: "Efficiency combined with good wearing qualities are attributes of the ohc engine. The drawing shows the ohc engine fitted to the International Norton; note the hairpin valve springs, which are employed as standard." "A spring frame is one of the essentials of real comfort. The Vincent-HRD frame is an example of a well-tried and successful design." "Engines of the high-camshaft type are becoming increasingly popular. Here is the 500cc high-camshaft Velocette engine, the makers of which originated the type."

paper, admire shaft drive. In practice I like it only if there are enough cylinders and flywheel effect to make it smooth. I did not intend to get on to transmission matters so early, as I have in mind a lot more items to do with engines. First of all there is the overhead camshaft. More expense—but it seems quite obvious that with just the weight of the overhead rockers and no push rods and tappets, there is bound to be less wear on the valve gear. Further, an engine can run faster and with greater reliability for a given valve spring strength, or the same results can be obtained with lighter springs. Also, a well laid-out overhead camshaft looks so neat, does it not?

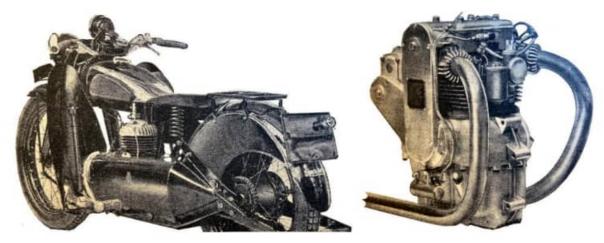
Next to the overhead camshaft comes the high camshaft, such as is to be found on Velocette, Sunbeam, and Vincent-HRD models. It is less expensive and very practical. While on the subject of valves and valve gear, I like all-enclosed valve mechanism because I feel that no moving parts should be exposed to mud, dust and rain, but I also admire hairpin valve springs because most of the spring is well away from the hot cylinder head and valve stem. However, perhaps they are best kept to their own spheres, the one for touring and the other for racing. Even this is not quite right nowadays, for the Excelsior Manxman races with enclosed springs shall we see enclosed hairpins in the near future? Another engine feature which I favour is the deeply-spigotted cylinder, which provides support where it is most needed and gives a neat and workmanlike appearance. I have already expressed a strong preference for unit construction, and this, as a rule, means a gear drive for the primary, and this also I like. But if a primary chain is employed, this, in my opinion, must be enclosed, and must run in oil. A clutch that runs in oil is often inclined to drag, and therefore I am in favour of some such scheme as that adopted by the Rudge-Whitworth people in which the clutch to all intents and purposes is oil. proof, and I am inclined to prophesy that there will be further developments in this direction. Humbly I submit that the rear chain also should also run in an oil-bath case, but Sunbeams do not appear to have many copyists. I wonder why? Of course, it involves a quickly-detachable rear wheel, but this is yet another desirable feature, so I for one do not hold that point against it. Wheels, of course, must be strong and stiff, and I like big tyres, but cannot the ensemble be made a little lighter? I am inclined to think that the use of really big tyres should enable the rims and spokes to be lightened, because the wheel in itself is smaller, and receive less shock. Present-day speeds demand big brakes, and it is just as important that the brakes should he waterproof. Further, I like the double brake lever bearing introduced by Excelsiors for the TT. In the matter of gear boxes, I am afraid that I am a bit unorthodox, for I want only three speeds. I have never found a good use for a four-speed box, except for (1) a racing machine, and (2) competition work. This in itself may be an admission of the desirability of four-speed boxes, but you who ride solo—how often do you use bottom gear? However many gears I have I



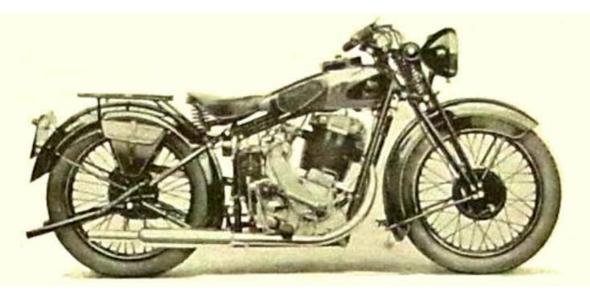
L-R: "The Douglas Endeavour is a good example of advanced design. A transverse-twin engine, unit construction and shaft drive are but a few of the many interesting features of its specification." "The rubber-mounted handlebar is a fairly recent introduction, but one that has done much towards improving riding comfort, especially on long journeys." "Total enclosure of the primary chain, with the chain running in oil, is an essential feature on a modern machine, in the opinion of Ubique."

want fairly close ratios for the two top ones and a moderately low bottom ratio. The four-speed box has its advantages on a really snappy performer, for one can have three ratios close together and an emergency ratio. Also, it is undoubtedly useful on a low-powered machine, but on a slogging tourist three ratios ought to be enough for anyone, and a box of this type would be

cheaper, lighter and less noisy, which means more efficiency. In any case, the gears should be foot-operated on the positive-stop principle. I have ridden many machines with spring frames. Some have been bad and some extremely good, and I think that it is fair to say that all the present-day forms are good. I have memories (years ago) of an amazingly comfortable lap round the Manx course on a Velocette fitted with a Draper spring frame, and have often been surprised that spring frames figured no little on racing machines until the last year or two. A similar type of frame has given me many a pleasant ride on Brough Superiors. Then we have the Vincent, OEC, Matchless, and New Imperial, all standardising rear springing. Why don't we see more spring frames on the roads? In combination with a spring frame I like a long, slow front-fork action, with moderately heavy damping, and I like bottom-link forks because they remove some of the unsprung weight from the front of the machine. Another recent improvement, which I hope I may never be without, is the rubber-mounted handlebar. I have had an early Ariel bar in use for well over a year and can testify to its value, especially on long rims. Just one more matter regarding personal comfort—I like a big saddle, with one of those back rests which appear to be little more than a ledge to prevent the rider sliding rearwards. I have little time for cleaning my machine, and therefore I like an all-enclosed model that can be hosed and wiped down with a damp rag. I have one, too. My 'Cruiser' Francis-Barnett has excellent leg shields and mudguarding, and I have never needed waders on short journeys, whatever the weather. This all sounds rather 'touristy', but do not imagine that I object to fast machines—I like them. Yet I believe that speed, comfort and silence can be combined, and I think that we are getting nearer to that ideal every year. The 'perfect' motor cycle of the future will most certainly possess a good prop stand, although before I get too creaky in the joints I am hoping—and even expecting—to see such an increase in the use of light alloys that the prop stand will not be quite so urgently needed as it is now. Of course, the machine most be silent. I am afraid I cannot give an example of an existing machine in this case because none of them is as quiet as I should like."

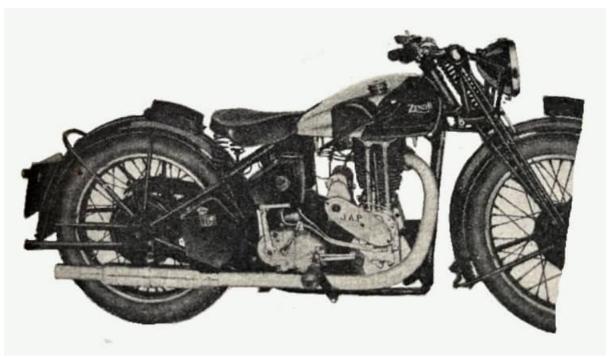


"An example of a modern all-enclosed machine—the Cruiser Francis-Barnett. Apart from affording protection to the rider, machines of this type can be hosed down without harm." (Right) "Four-cylinder engines are smooth, quiet, fast, and have wonderful acceleration. The photograph shows the famous Ariel four-cylinder unit."



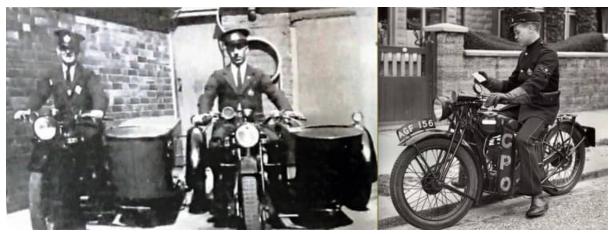
"Alterations have been carried out on the recently introduced 500cc unit-construction ohv Model 79 New Imperial with a result that from its appearance it might be another new model. The modifications actually are confined to the upper half of the engine...the cylinder casting and head are so large that the engine might easily be of 750cc instead of 500cc."

"A 498cc TT REPLICA JAP-engined machine is the outstanding model in the 1936 Zenith range. Known as the C5 Super, the new model has a very attractive specification and is designed generally to be a real 'rider's mount'. The massively built JAP engine has its cylinder deeply spigotted into the crank case. The valves are fully enclosed and lubricated; the rocker gear has automatic lubrication, and there is an adjustable oil by-pass to the cylinder itself. Dry-sump lubrication is employed, incorporating a fabric filter. The carburetter fitted is of the Amal down draught type. Ignition is by Miller Dyno-Mag. Transmission is through a Burman four-speed gear box with foot change. The primary chain is enclosed in an oil-bath case (with a detachable clutch dome), while the rear chain is automatically lubricated. The frame is of the full duplexcradle type with Druid girder front forks with steering damper and shock absorbers. A low-lift rear spring-up stand is a useful refinement. A 26x3in tyre is fitted to the front wheel, and a 26×3.25in to the rear; a 7in front brake and an 8in rear brake are employed. Other detail points are the folding kick starter, two-lever petrol tap, three-gallon petrol tank, Dunlop saddle, rubber mounted handlebars, a quickly detachable portion to the rear mudguard, and a very complete took-kit. The finish is in black enamel, with the petrol tank chromium plated and with Zenith purple and black panels. The other machines in the range cater for widely differing tastes: the capacities of the machines range from 250cc to 1,100cc."



The C5 Super Zenith-JAP TT replica was described as "a real rider's mount"".

"HOW SIMPLE AND SAFE the modem motor cycle. is to ride has been proved up to the hilt—if additional proof were needed—by the announcement just made by the Post Office authorities regarding their motor cycle telegram service. In the past year 3,200,000 miles of city streets were covered by the messengers (all boys still in their teens!) without a serious casualty. About 200 machines have been in commission for 18 months, and each has had a yearly mileage of about 16,000. Where motor cycles have been used telegram deliveries have been twice as quick as formerly. Here are the views of a prominent Post Office official: "We are more than satisfied with the innovation, and we have reason to be proud of the boys who are in charge of the machines. The latter are all under 18, but they have proved skilful riders. Before the scheme was adopted some of us were rather nervous over the risk of accidents. The fear has proved to be groundless. There have naturally been some minor accidents in the heavy London traffic, but more often than not the fault been with the driver of some other vehicle. Certainly the motor cycles have turned out to be a successful means of telegram delivery. The idea that motor cycles are dangerous is exploded. Mechanical difficulties have been negligible, although each machine.is used by several boys. All the boys have been remarkably apt in mastering, the technicalities of the machines, in which they had a course of instruction. In time the service will be extended to cover the whole country."



The Post Office had come to rely on combos for postal deliveries; now nippers were proving themselves on solos.

"AS WE CONFIDENTLY EXPECTED, the Postmaster-General's experiment of mounting telegram delivery boys on motor cycles has proved a great success. The speed of telegram deliveries from the post offices concerned has more than doubled during the 18 months that motor cycles have been employed. And what of the boys themselves? No praise can be too high for these young riders—not one of them over 18 years of age. According to the official figures, the boys covered a total of 3,200,000 miles of busy streets during the past year—an average mileage of 16,000 for each rider—without a single serious casualty. When the scheme was first suggested, high officials in the Post Office were apprehensive about putting such young riders in charge of motor cycles. We are glad that the boys concerned have shown once and for all that not only is the youth of this country to be trusted on the roads, but also that the motor cycle is the safest and finest vehicle on which to gain experience."

MOTORCYCLE SPORTING EVENTS at Easter included track racing, sprinting, grasstrack, speedway, trials, hillclimbing, sandracing and scrambles. Highlights included a sprint at Gatwick Racecourse in which Eric Fernihough and his blown 996cc BruffSup broke the 12sec barrier with an 11.72sec standing quarter.

"AA PATROLS IN THE past year covered, in the aggregate, more than 34,000,000 miles and rendered mechanical assistance on over half a million occasions."

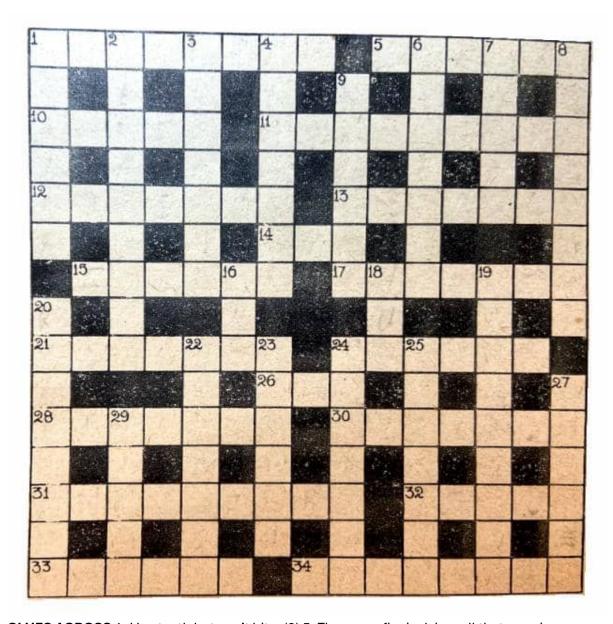
"SPEEDY SPEEDO. HIGHGATE motorist: 'My speedometer was out of order.' Policeman: 'I agree. When the car was stationary the speedometer showed it was travelling at 11mph.'"

"WRONG-SIDE PARKING. 'I am sorry to say there is no law against pulling up your vehicle and leaving it on the wrong side of the road. If there were, many accidents would be avoided.'—Mr Justice Humphreys."

HARLEY DAVIDSON DEALER Earl Robinson crossed the USA from NY to LA on a Harley 45 flathead (that translates as a 750cc sidevalve) in a record breaking 78hr 54min. Then he did it again on a combo with his wife Dot in 89hr 58min to set another record. They were both successful in long-distance trials; Dot later co-founded the Motor Maids of America.

"TENS OF THOUSANDS OF READERS are no doubt on holiday at the present time. If you are one of them perhaps the following cross-word puzzle, which I am including with the Editor's permission, will amuse you even as it has amused me. As you will find when you delve into it, the puzzle contains much that concerns motor cycling. Next week I will publish the solution so

that you can check whether you have got all of it right. One thing I can promise you: it is not difficult—I managed to solve it myself!—Nitor [Nitor edited the 'On the Four Winds' page of the Blue 'Un; I plan to try the crossword but you're on your own with the solution—it was published in the issue dated 15 August which I don't have, so best of luck—Ed.]

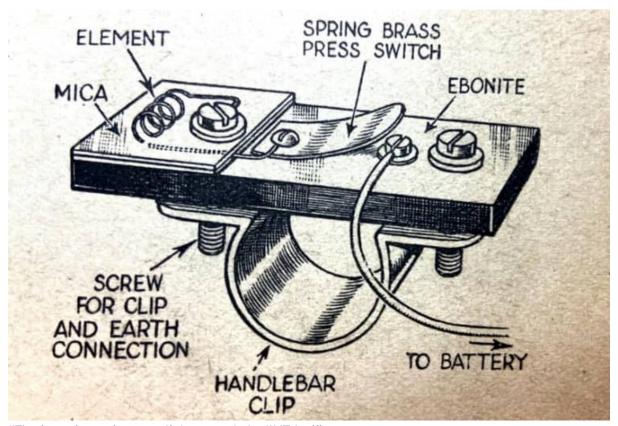


CLUES ACROSS 1: Has teeth but can't bite. (8) 5: The camp fire is dying; all that remains are — —. (6) 10: Do you remember the unit construction machine of this make? (5) 11: Weapon of which even pacifists would approve. (9) 12: Tender attention our steeds sometimes need. (7) 13: The turning-point in many a revolution. (7) 14: Most of us have two, and when towing make full use of them. (3) 15: All sorts make the motor cycle world. (6) 17: A proposition. (7) 21: These cause the wheels to go round. (7) 24: The race is postponed—and we expect our money bark. (6) 26: Some of us use this as slang for light alloy. (3) 28: Well held. (7) 30: Here you must take a back seat. (7) 31: Instruments in current use—though most dictionaries spell the word without a 'p'. (9) 32: You often seem to encounter this type of man when you want to know the way. (5) 33: Our inner tubes are liable to do this. (6) 34: Trials riders generally wear waders as affording more protection. (8) CLUES DOWN 1: Jump to it! (6) 2: Most motor cyclists push when doing this. (9) 3: Some riders still use it for lighting purposes. (7) 4: The chain does this with 1 across. (7) 6: A

faulty plug can cause it. (7) 7: Urged. (5) 8: Famed for their oil baths. (8) 9: Many picnic baskets contain it. (6) 16: Regret. (3) 18: Colour. (3) 19: The artiste's version. (9) 20: Red at night (two words). (8) 22: Cook uses these for flavouring. (7) 23: To make unhappy. (6) 24: A thrust, both in fencing and repartee. (7) 25: TT riders realise that this is a job in which every second counts. (7) 27: Joins. (6) 29. Snake—but don't blame the steering. (5)

"WHILE ON THE SUBJECT of Post Offices, here is an out-of-the-ordinary adventure—quite true—which recently befell a reader, and which started in a small PO in East Sussex. When buying some stamps he overheard a gentleman making an enquiry re the licensing of his car. He had, apparently, forgotten to renew the licence, and the 14 days' grace had also expired. Worse still, he had left his log book in his empty house in Dorset, 150 miles away! More or less as a joke, our reader offered to ride there, enter the house and find the log book, license the car at the local licensing office and return. The offer was accepted—and the whole thing was carried through successfully."

"AN ELECTRIC CIGARETTE-LIGHTER may be constructed quite simply from a few oddments, usually to be found in the motor cyclist's 'junk-box'. The lighter in question is fitted to a BSA, and in action takes only 1½ amps out of the six-volt battery. The items required are, briefly: A piece of ebonite 2in long by 2in wide, an ordinary handlebar-clip, three cheese-headed bolts with nuts, a small piece of spring brass (for the press switch) and a wireless earthing stud, an element from an old electric fire (about 2in long and containing three small coils), and two pieces of mica for insulating the element. Examination of the sketch will make clear the construction of the gadget, which is quite simple to make.—'JHT Jnr'."



"The ingenious cigarette-lighter made by 'JHT Jnr'."

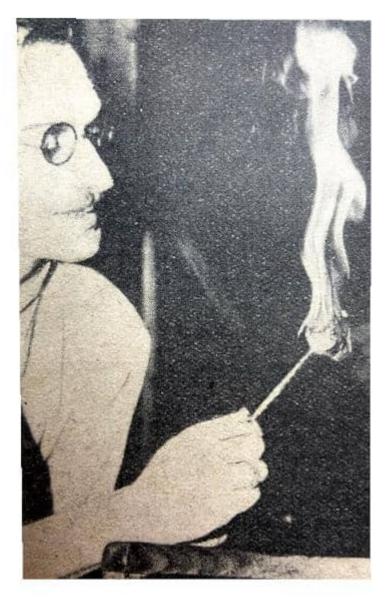
"TOO SENSIBLE FOR WORDS. After 45mph limit signs had been erected in Honolulu, it was discovered that the maximum prescribed by law was only 35mph. It was too expensive to alter the signs, so the law was suitably amended."

"PRETORIA (SOUTH AFRICA) HAS started a 'fines-on-the-spot' scheme for motoring offences. Using an unlicensed motor cycle costs only £1, according to the official 'price list'."

"BORINGS IN GERMANY resulted in 48,098,700 gallons of petroleum in the first half of 1935, compared with 29,217,100 gallons in the corresponding period a year previously."

"TOLL TALE. SURPRISE has been caused by the news that a profit of £120,000 from Menai Bridge tolls may be handed to the Exchequer. In some quarters it is felt that any surplus should be devoted to reducing the tolls."

"OF ALL INDICTMENTS of the high-compression single-cylinder motor cycle there can never have been one so forceful as the mere sight of these clubmen trying to get their engines started...' Thus ran a pertinent comment in our review of The Motor Cycle Brooklands meeting. It so happened that the very morning this was published we received a letter from a reader condemning the BMCRC for not allowing the clubmen to have assistance in starting up. Fancy, it is actually considered desirable that motor cyclists—young and, presumably, hardy clubmen, not elderly men who have, perhaps, lost their early vigour—have help in starting their own motor cycles! Does not all this bring home to the whole motor cycle world, and through it to every manufacturer of motor cycles, that there is something seriously wrong with the general trend of modern design? The blame lies with our almost slavish adherence to the single-cylinder engine and the constant demand for more power per cc irrespective of the consequences. We have stressed over and over again this desire for easier starting, but still the tendency is to concentrate upon one type of motor cycle, which by its very nature must restrict the number of would-be devotees of the most economical motor vehicle that exists. Some definite evidence of designing and manufacturing enterprise in the motor cycle world would prove a tonic."



"After 16 years' experiments, an

American chemist, Dr Adolph Prussin, claims to have evolved a non-explosive 'petrol-jelly', suitable for internal combustion engines. 'Solene', as the new fuel is called, is turned into vapour by heat from the exhaust and engine suction. Bullets have been fired into the fuel without ignition taking place. When directly lighted it burns slowly, as shown in the photograph."

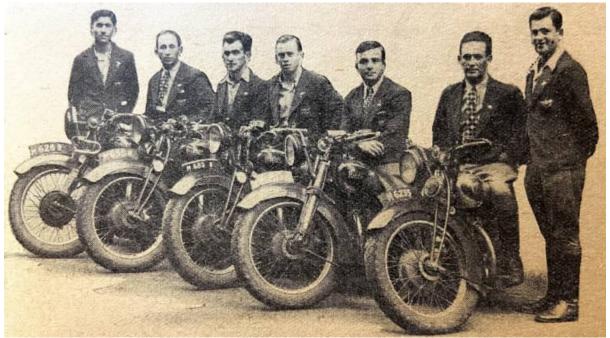
"A TOME AT HOME? 'The Highway Code is not a novel or a history book, but its influence—its practical influence—can be as considerable as almost any book that was ever written.' —The Minister of Transport."

"CONVERSATION PIECE. Motor cyclist giving evidence at Highgate: 'He said to me: "Why doesn't your machine go?" I said I didn't know. He said: "Why don't, you know?" I said I didn't know, and he said he didn't know either."

"OWN MEDICINE. Distinguished Ministry of Transport officials, says The Daily Telegraph, were to be seen recently picking their way across Whitehall Gardens through a sea of tar inadequately covered with stone chippings."

"AN 'ALL STATIONS' CALL and a signal to the police wireless cars sent out when a vehicle is stolen costs anything from £15 to £20, according to a detective-sergeant giving evidence at Tower Bridge police court."

"MOTOR CYCLES ARE ON the increase again—this is the interesting fact that emerges from the licensing return issued last week by the Ministry of Transport. The latest statistics show that at the end of February this year there were 30,000 more motor cycles registered than was the case last year. This might be explained as resulting from the dry weather but...the number of motor cyclists is definitely rising. In the recent past there has been a widespread desire to possess that key to the open road and freedom, the motor cycle, but thousands, because of lack of money, were forced to remain 'motor cyclists on paper'. The tide has turned, and we believe that, excluding the so-called boom years, there will be more motor cyclists than ever on the roads this Easter. Only two things are needed; first, the boon of good weather, and, secondly, the realisation that an ounce of rare is worth a ton of regrets."



"TOURING FOUR CONTINENTS. These seven riders are members of the Palestine Maccabi Motor Cycle team, and since the conclusion of the Palestine Olympic Games in April they have covered 18,000 miles in four continents, propagating 'sport in general and motor cycling in particular.' Soon after they arrived in England they set out to see-the birthplace of their Rudge machines (which, incidentally, have proved almost trouble-free) in Coventry. They plan to cover a further 3,500 miles before returning home to Palestine."



These newlyweds decided to go touring for their honeymoon—they're pictured with their Beeza in Burma en route from Lithuania to Shanghai.

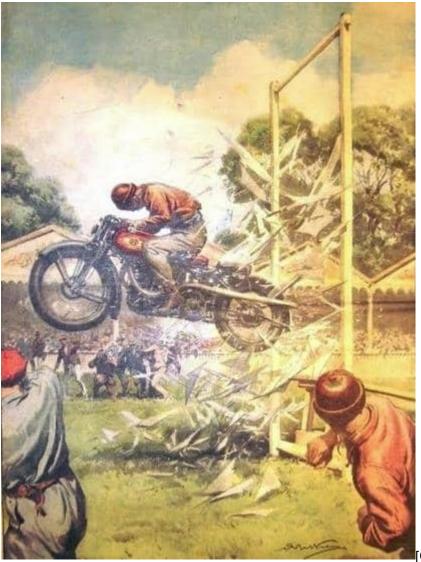


This snap was taken during the 500cc class in the French Grand Prix.



No details to

hand, apart from the fact that these chaps are American; one balanced on a penny-farthing, t'other inside a nifty monowheel.



[Clumsily] translated from the Italian caption, which I think reads rather sweetly: "Extravagant feats. On a London sports field, a motorcyclist smashed a large sheet of glass erected at the end of a pedestrian walkway in mid-stride and emerged unharmed from the shower of sharp splinters caused by the crash."

#### Prepare for three doses of Ixion. Beautifully written, as always, but thought provoking too.

"I HOBNOBBED with a Yank the other day. Quaffing an Ovaltine in my den at Benzole Villa he picked up the current issue of the Blue 'Un, and I saw him bristle suddenly, as a terrier who smells something fresh and catsome. (Should have said that the Yank is a big publicity man.) He began to hold forth on what an extraordinary country Britain is. 'In America,' he said, 'motor cycles sell in quite microscopic numbers, considering the huge population and the general size of their motor industry; and sell only to cops and working men. But here,'—he almost stuttered as he drew my attention to the 40-odd pages of small ads. at the back of the issue—'you contrive to exalt motor cycling into a national sport, as proved by this constant interchange of machines and parts between individual enthusiasts, and you sell them to wealthy youngsters as freely as you sell them In factory apprentices.' From that we wallowed in a lengthy argument as to why all phases of motoring are more individual and more sporting in England than in other countries, which emphasise the social and utilitarian aspects more than we do. I suppose the only answer is that we Britons are more individualistic. My Yankee friend admitted that he never

dreams of driving himself when a chauffeur is available—a weakness which seldom assails us till we are seventy. It was also agreed that we Britons place a possibly exaggerated emphasis on sport of all sorts. We instanced two rich young men of our acquaintance—the one an American, who employs a chauffeur and seldom drives his own roadster; the other an Englishman, who will not allow anybody but himself either to drive or to adjust his Bentley."

"ALTHOUGH I HAVE A PASSIONATE desire to see youthful male and female labour motorised, it is not due to self-interest. If a couple of million cheap lightweights could be sold in 1936 it would not benefit me personally a stiver. I am much more altruistic than I sound; and I dream of motorising the mass of labour because: (a) Motor cycling is a great asset to health. (b) Motor cycling is a great convenience. (c) Motor cycling makes a man concentrate, and his worries are driven out of his mind when he is in the saddle. (d) Motor cycling is highly educational, and teaches judgment and self-reliance. (e) Motor cycling facilitates far more enjoyable holidays than the railways or motor coaches. (f) Motor cycling introduces great variety into lives which' without it may become monotonous."

"DURING AUGUST BANK HOLIDAY the roads leading to the coast and to the many beauty spots were a-hum with happy, care-free motor cyclists. Adherents to the sporting side had their pick of many road races, trials and grass-track meetings organised by clubs up and down the country, and every event had its huge and enthusiastic following. Despite the busy condition of the roads riding was more than usually pleasant owing to the noticeable all-round improvement in road manners. Observation showed that motor cyclists were particularly praiseworthy in this respect, while drivers of other vehicles also appeared to have taken the injunctions of the Highway Code to heart."

"THE MANAGING DIRECTOR of the Enfield firm has had a 98cc miniature built for his seven-year-old son—and I warrant the said son is the envy of small boys all over the Empire. The news set me thinking, for I often encounter a difficult problem which it might solve. A lad of licenseable age pesters his parents to equip him with a motor bike. His parents see me. They are moderately willing, so far as £sd goes, and admit that Jack has made himself fairly safe and knowledgeable on a push bike. But youth is naturally a little impetuous and rash; and the parents dread lest Jack should commit some blunder in his initial essays on our congested roads. Very probably there is no really quiet place where Jack may put in some hard riding practice. I usually solve their difficulties by driving Jack to some lonely place in a car and taking a baby two-stroke for him to learn on. But if I had a big agency I would coax Enfield's to list the 98cc miniature as a production job; buy one, and instead the youth of my neighbourhood on cricket fields and other enclosures where no licences are necessary and where no age limit exists. What a happy afternoon any boys' prep school could spend under such conditions!"

FOR THE FIRST time TT competitors were allowed to warm up their engines before the start; travelling marshals were appointed to patrol the course during races; pit crews were allowed to do more to help their riders; and the Manx flag was waved by the starter in place of the the Union flag. Understandably, after its traumatic 1934 experience, Husqvarna stayed away from the TT so Stanley Woods rode 250 and 500cc Moto Guzzis. The previous year Woods had made the fastest Senior lap and if he hadn't run out of fuel would have won. In 1935 the 'foreign menace' was gathering momentum. Woods' Senior Guzzi twin head effective rear suspension—the only Brits with rear suspension were Vincent-HRD and OEC. From Germany came 250 and 500 DKWs and NSUs which were known to be race winners on the Continent; they were joined by a brace of ohc unit-construction Jawas in the Junior and while the Czech contenders were untried no-one doubted their potential. Among the 107 entries were riders from Australia,

Denmark, France, Italy, Spain and New Zealand. Woods broke the Senior lap record by more than 30sec during practice; his team-mate Omobono Tenni did likewise with the Lightweight lap record. But the Junior, as expected, was a repeat of the 1934 race with a Norton hat-trick courtesy of Jim Guthrie, Walter Rusk and 'Crasher' White—Norton's fifth consecutive Junior victory. There were 19 finishers in the Junior; Norton, Velocette and AJS took the top 14 positions with Jock West's NSU 15th, followed by three more Velos and an Excelsior. Two Jawas and two NSUs were among the 'DNF's. But, also as expected, Stanley Woods and his Guzzi took top honours in the Junior (setting another lap record in the process) to



Carlo Guzzi, Stanley Woods and Giorgio Parodi following the Lightweight TT victory—the first win by a foreign machine since 1911.

record the first TT win by a foreign marque since the Indian tribe's Senior hat-trick of 1911. He was chased home by Tyrell Smith and Ernie Nott of their Rudges and Ginger Wood on his New Imperial—three top TT riders on three top TT bikes. The message was clear: the TT was no longer a British benefit. A DKW and a Guzzi finished 7th and 8th—Omobone aboard the third Guzzi held second spot until lousy visibility caught him out and he crashed at Craig-ny-Baa on his fifth lap. Two DKWs failed to finish as, in the marque's final TT appearance, did Freddie Clarke's OEC. The big question was, could that man Stanley Woods and the 120° V-twin Guzzi do it again against the might of the Nortons? The poor weather that had dogged the Lightweight deteriorated to the point that, for the first time in TT history, the race had to be postponed. Many fans had to go home; so did some Senior competitors (including Noel Pope who had an



Noel Pope rounds Governor's Bridge in the Junior—Velos dominated the race but Pope's failed to complete the course; he left tghe Island before the Senior to keep an appointment at Brooklands.

appointment at Brooklands...as we'll see, it was a good call). But finally the mist on the Mountain cleared enough and the stage was set. At which point I'm handing over to TT Special editor Geoff Davison for an eye-witness account: "I can only describe the 1935 Senior as a terrific race. It was the fastest Senior up-to date, the course was lapped at over 86½mph, and it was won by the narrow margin of only four seconds. Jim Guthrie led on the first lap, with Walter Rusk on another Norton 27sec behind and Stanley on the Guzzi a second behind him. Then on the next lap the Irishman drew into second place, 47sec behind the Scots Norton rider. Jim increased his lead to 52sec on the third lap, but the difference was 42sec only on the fourth lap. The fifth lap saw Stanley creeping up, now only 29sec behind, and on the sixth lap 26sec. 'Jim's done it again,' we said. 'Stanley can't catch him.' Jim was No 1 in the race, by virtue of his last year's win Stanley was No 30 [and thus started 15min later]. Jim came flying past the finish and everybody at the Grandstand rose to cheer him as winner of his fourth TT race in succession. When the lap times went up it was seen that Jim's last lap had been covered in 26min 40sec, as against 26min 31sec for the lap before. It was, indeed, his slowest lap except the first, from a standing start, and the fourth, on which he re-filled. Still, he has plenty in hand, we said;



Timekeeper AV 'Ebbie' Ebblewhite waves of Jimmy Guthrie in the Senior. (Right) Walter Rusk at Signpost Corner in the Junior. Both finished second.

Stanley can't do it. But Stanley, on the far side of the Island, was doing all he knew. Spectators reported that on this lap he was really in a hurry—not half he wasn't! Flat out he went round that last lap, to do it in 26min 10sec, to break the lap record by nearly 4mph and to win the closest-ever TT race by four tiny seconds. And whilst he was doing it, Jim stood quietly at the pits, with anxious eyes on Stanley's clock; knowing, of course, that he could have made his last 26min 40sec a 26min 30sec lap without any effort at all...So the Norton winning sequence was disturbed by an ex-member of their own team, a rider who had won five TTs on Norton and who that day scored his eighth TT success." Everyone thought Norton had done it again until Woods flashed over the line and over the loudspeakers came the announcement: "This is the clerk of the course speaking, Stanley Woods is the winner—by four seconds!" So instead of their expected 1-2-3 Nortons ridden by Messrs Guthrie, Rusk and Duncan finished 2-3-4 to take the team prize—but they were followed home by Otto Steinbach and Ted Mellors aboard NSUs (once again a brace of Jawas failed to finish) and the TT would never be the same again although it was a good year for HRD-Vincent; having abandoned JAP in favour of the Phil Irving-designed own high-cam engine the Stevenage crew finished 7-9-11-12-13.

WOODS LATER DESCRIBED THE race in a feature for the Blue 'Un: "In this Article, Describing His Tactics in the Most Thrilling Road Race of the 1935 Season, Stanley Woods Shows an Ability for Writing that is Second Only to His Skill as a Rider" "There has been so much written about my win in this year's Senior TT that perhaps it will be of interest to many followers of the game to know the inside story of the race and of the events which led up to it and determined the tactics used by me. In the the first place it will be remembered that this year, previous to the TT races, I failed to finish every race in which I started on Moto-Guzzi machines. My retirement in each case was caused by a more or less serious engine failure—and every time something different! This state of affairs rather damped my hopes of success, but with three weeks to go before the start of TT practice, we set about modifying the parts which had so far given us trouble. In addition to addition to these modifications we reduced the power output by lowering the compression ratio quite a bit. The fact that we were ready for practice speaks volumes for the energy we expended. It soon became apparent to us that, excluding mechanical failure, we had little to fear in either class. My win in the Lightweight confirmed this, but upon examination of the engine after the race I realised that I should have to change my methods of driving if I wished to complete the course in the Senior. In the Lightweight race I drove the engine to peak revs (7,700rpm) in each gear, but seldom exceeded 7,300rpm in top, except on the second lap when I drove as hard as I could! Accordingly I began to work out how quickly Guthrie would go—and

promptly slipped up very seriously! I forgot that in practice last year he had lapped in 27min 1sec, and that if conditions had been good in 1934, in all probability he would have gone round in about 26min 50sec—so I let myself be misled by his best practice time this year (speaking from memory, 27min 20sec). I expected an opening lap at about this speed (82.3mph) and decided that it would suit me nicely. Thus, I would save my machine and at the same time lull the opposition into a false sense of security, as during the last three years my tactics have been to establish a good lead as early as possible (when possible!) and then hold it. My idea was to keep somewhere near Guthrie on time until the last lap, and then take the lead with a final lap in about 26min 30sec. But, as is often the way, the best laid plans slip up. Came the great day, with both my private telephone stations and timing staff working perfectly. My pit man was drilled to perfection; he knew that I would fill up at the end of the third lap, and was prepared to give me half a gallop or so should I need it at the start of the last round—and was anxious to bluff the opposition into believing that I would definitely need it and so perhaps make my task a little easier. A final talk on the phone to my 'back of the Island' station at about 10.15am gave me the reassuring news that conditions were rapidly improving, and that as far a Ramsey there were only two slightly damp spots—bright news indeed after the previous three days' conditions! A last word to the lads in charge of my 'No 2' station at Glencrutchery Road and I leave for the Paddock. The extra half hour's wait, due to the postponement, throws an extra strain on all the riders, but I am not unduly nervous and the time soon passes. From the word 'Go' my bike runs perfectly, and in accordance with my plan I do not exceed 7,200rpm in the lower gears or 7,400rpm in top. With the exception of a severe skid at Greeba Castle, due to the frame dampers being a shade slack, I have an unexciting run until I reach any timing station, where I get the 'thumbs down' sign—meaning that I am a little behind Jimmie G. I am tempted to open up, but caution wins—or almost wins—and I let her go up to about 7,300rpm in the gears up the Mountain. However, I go gently down the gears and easy on the bends as she is a very different machine from my 250, and I have not ridden her at racing speeds since Wednesday week—and then only for two laps! The day is perfect, and conditions could not be better—just a few wisps of mist high up on the hillside before the Bungalow. I thank heaven that the ACU did postpone the race—what a difference from Wednesday! This is real racing. What a. joy to have a machine under one which is anxious to go faster than one thinks necessary! And so to the end of Lap 1. Through the pits so fast that I can only just pick out my pit as I flash past—but it is only necessary to locate it accurately for my filling-up stop, as I get all my information at my 'No 2' station several hundred yards below the pits. Here a shock awaits me, for 'No 1' has telephoned through the correct results for the first half-lap—'Second, 15 seconds behind.' A nasty shock, but I must not panic. Down Bray it soaks in—15 seconds in half a lap! Then I remember those extra hundred revs up the Mountain and decide that that will hold Guthrie OK. On I go, keeping the revs down, but going a bit harder on the bends till I reach 'No 1' station again and get the times for the first lap—still second —that's OK, but now I am 28 seconds down. I panic for a while and turn on the gas for a mile or so. It is surprising how much time one has for thinking when travelling round the Island at about 84mph, so Reason soon returns and I throttle back, but decide to lose nothing on riding. Up the Mountain once more and down again to Douglas. More bad news—a lap and a half done and another nine seconds lost. A total of 37 seconds in arrears—this will not do, so reluctantly I decide that I must go faster. I decide on 7,400rpm in the gears and peak safety revs—7,700— in top.

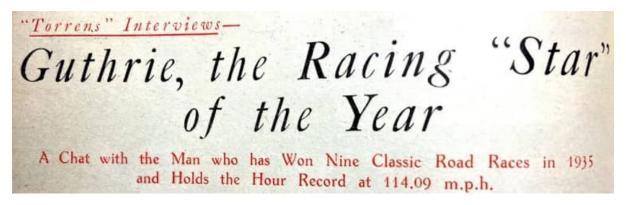


Stanley Woods en route to his historic four-second Senior win. After scoring two TT doubles for Norton in 1932 abd 1933 he did it again, for Moto Guzzi, and set a new lap record at 86.53mph.

The Guzzi seems to like it, and, of course, pulls the higher gears much better after revving up the extra bit in the lower ones. I reach 'No 1' again and find myself another 10 seconds down—47 seconds for two laps! I won't know how much good my extra revs are doing until I pass the finish and get 'No 1' station's report by 'phone. Entering Ramsey I come up against my first snag—a couple of slower riders who hold me up for a few valuable seconds, which seem like minutes. The same trouble occurs again on the Mountain, but I soon get by and go on to finish the third lap. I accelerate hard from Governor's while opening the tank caps and slow down early and brake to a gentle stop in exact position at my pit. In goes the petrol and oil, a heave, a few staggering steps, and the Guzzi bursts into life once more. A glance at 'No 2' station tells me that at last I'm holding Jimmie G—in fact, I have pulled back two seconds and am now only 45 seconds behind. Once more I tackle the ever-terrifying Bray, but this time with a lighter heart, and so on without incident to Sulby where I get further information from the timing staff. Curses! Another seven seconds down—a total of 52 seconds for three laps. I fume as I remember those baulks near Ramsey and on the Mountain, and I hope I shall meet no more. On to Ramsey—the Bungalow—Windy—the 33rd—concentrating on the exact line everywhere, and happy in the knowledge that I am taking each bend faster every lap. The Stands with their waving flags and cheering crowds, and—Cheers! my signal showing a gain of four seconds. Here comes Sulby another six seconds saved, but still I am 40 seconds behind and with only three laps to go I reckon it out as I approach Sulby Bridge. I gained six seconds that last half-lap 12 seconds a lap and I need 14 to tie. Surely I can do it without over-driving—surely I can find those few seconds somewhere on the innumerable bends. I feel sure I can and decide to nurse my engine a little while longer. The Stands again. The strain of restraint is beginning to tell and I can hardly wait for my signal. My optimism is justified for I have pulled back another seven seconds. I start the sixth lap confident of victory, and perhaps for this reason I have my one and only super thrill of the race. Approaching 'Handley's Cottage'—a tricky left-right double bend between the 11th and

12th milestones—at about 107mph, I forget to shut off until some considerable distance past my usual braking point. I suddenly 'wake up' and indulge in some really hectic braking and scrape through at about 10mph faster than I've ever got through before! A very rude awakening, but a lesson to me. Sulby's tale is not so good when I get there. I am still 29 seconds behind, but I decide to hold to my schedule and not use maximum revs unless I have to. Ramsey and the climb over Snaefell one more, my motor going better than ever. The spectators realise that I am still in the running and are cheering wildly. Craig-ny-Baa is a wildly waving mass of arms. A strange thrill runs through me to know that they are cheering my efforts, and showing the true sportsman's appreciation of a race well run, whether the rider be first, second, or also ran. Glencrutchery Road, and a quick glance into my petrol tank to make sure that all is well. To stop means to lose the race, but better second place than 'Stopped on the Mountain' as in 1934! All is well! For the first time in the race I let her go to peak revs in third gear, only engaging top below the pits. There is my signal—second, 21 seconds behind—another eight seconds saved. That was at Sulby I reckon as I rocket down Bray Hill at almost peak revs in top—110mph. Another eight precious seconds saved by the end of that lap will bring Jimmie's lead down to 13 seconds—and another lap to go at 8 seconds a half-lap makes 26 seconds—I'll win by three seconds! These simple calculations have brought me to Braddan and then the devil 'Doubt' creeps in. Surely the Opposition—familiarly known as Joe Craig—will have signalled Jimmie to unleash another horse or so, for he cannot have failed to notice my progress. I'll have to risk it and turn on those extra revs—no I won't, I will, I won't—I will—three seconds is too close a margin when dealing with a combination like Jimmie G and his Norton. So leaving Union Mills I turn it all on, and the way the Guzzi responds in third after peaking in second is a joy. I get into top before Glen Vine, but realise the extra speed at which I'm travelling and return to third for this tricky right-hand bend. Back into top once more I find the revolution counter showing 7,700rpm. By the foot of the hill before Crosby it shows 7,900—about 116mph. Up the hill through Crosby it falls back to 7,700. Down the hill to the Highlander I keep her throttled down to that speed—fear for the engine and of the road surface helping to restrain me. From now on I most be careful. I am tiring slightly and am not accustomed to the extra speed which I am using. I must watch my braking points very carefully and shut off just the correct amount earlier to allow for this extra speed. Thank goodness the brakes are standing up perfectly. From the Highlander to Ballacraine I run with some slight restraint on the revs, and then I begin to think once again of the wonderful record of Jimmie and his Norton. To blazes with restraint! I run up to 7,700rpm in the gears and let her go as high as the road will let her in top. After all, once during practice I let the practice machine go to 9,000-odd in second and nothing broke. Quite by accident, may I add! On up Glen Helen and Greg Willeys, screaming in second and third, and then down Cronk-y-Voddy, screaming in top towards the bend. Then up to 7,800rpm before I shut down. A light touch on the brakes—third gear is engaged and down to it once more. I ease in time for Handley's Cottage this time, and then prepare for that wonderful drop down Begarrow to the '13th' milestone. Round that—too bumpy to think of the rev counter—just about on the grass for a few yards—must take it easy! More bends—more bumps—a short straight— Kirk Michael, Birkin's Corner, Bishopscourt, Ballaugh, The Quarries, Sulby, and my last signal...What a signal! Instead of the expected 13 seconds I see '2nd, 26 seconds.' I can hardly believe it. What has Guthrie had in reserve? I almost despair, but thinking to die game I crouch even lower on the tank and by the end of the straight see the needle touch 8,000—118mph! Ramsey and the Mountain—I most not lose a hundredth part of a second anywhere. My motor responds better than ever, and peaking on all gears I top the long climb at 7,500rpm in top. Round the bend by the telephone box I get on the grass again, but it is smooth and it is where I meant to go. All along the course little groups of people are shouting and waving. The Bungalow,

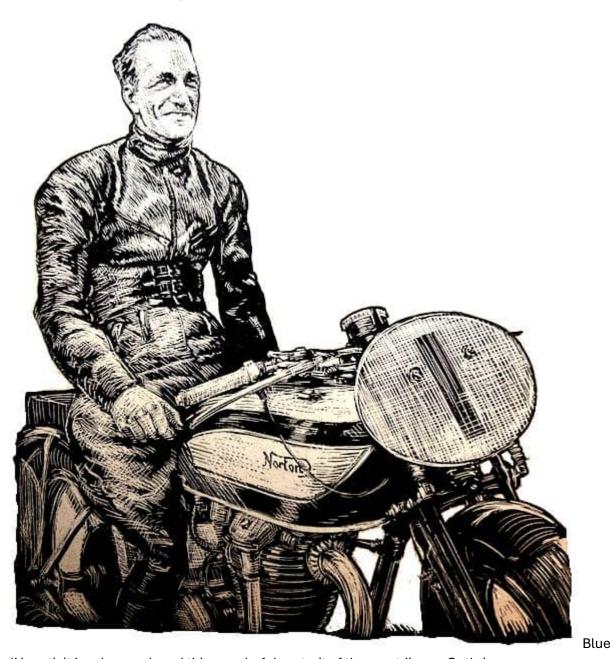
Windy, 33rd, Keppel Gate and down to Craig-ny-Bea with its cheering mob at 120mph. On to Brandish with the engine revs mounting and higher, and then hard on with the brakes for Brandish. Peak in second, peak in third, up to top, cut her off, brake, third, second. Off again, only another couple of miles. Seconds to save, but I must be careful. The bends are slower from Hillberry, but so tricky. The cheering crowds tend to put me off—I must ignore them—not even a little smile—except perhaps one of sheer happiness after a splendid race, for after my last signal I do not think that I can possibly win. Signpost, Bedstead, The Nook, Governor's, the finishing straight—the chequered flag...I shoot off down the road some hundreds of yards. My Italian friends come running after me and smother me in congratulatory embraces—for what? For a good second? For a stout effort? I don't know! Suddenly, a voice says, 'Good lad! You've done it by four seconds!' That was the biggest thrill of my life!"



"HOPELESS—THAT IS HOW it seemed to Jimmy Guthrie. He wrote letter after letter, asking for he chance of riding in the TT, but not a solitary manufacturer displayed the slightest interest. This occurred little more than ten years ago, at a period when almost the entire industry races. was supporting competitions, and particularly the Tourist Trophy races. As I chatted with Jimmy, our thoughts—his and mine—turned to the present day. How much more difficult it is—indeed, next to impossible—for the budding star of to-day to break down the barriers and get his chance as one of a works' team. As Jimmy said, there are so few makes to be approached. He himself had a hard enough task. Already he had done well in speed trials, sand events and hill-climbs. True it was in a small way, but he had been racing on his own account for five years and more. He started in 1920, following a spell in the Army as a Despatch Rider, and he had ridden in the Island in 1923 on a Matchless, more or less as a private owner. Having regard to his speed trial successes it might have been thought that some manufacturer would have sat up and taken notice of his possibilities as a racing man, particularly in view of the hold racing had upon the public. The way he got his chance is interesting. He was always a clever mechanic, and he succeeded tuning his AJS until it was moving really well. It was the Druridge Bay speed trials in 1926 that set him on the path to fame. The late Bert Le Vack, Brooklands idol and one of the most famous racing men of the day, was there; so was another well-known New Hudson rider, Ted Mundey, while looking on was Mr Price, who was managing director of the New Hudson company. Jimmy Guthrie had already approached Mr Price but without avail. The private owner proceed to wipe up Le Vack, winning both the 350cc and 500cc events—a lone man with no works' backing against a powerful company and two of the best-known men in the racing world...Along rushed Mr Price and asked Jim whether he would ride for New Hudson. Jimmy would and did. 'Things went very smoothly after that,' says Jim. The following year he made his first pukka appearance in the Isle of Man, and if you look up the records of past races you will find J Guthrie (New Hudson) second in the Senior of 1927. He was a made man, and I believe I am correct in saying that from that day to this Jimmy Guthrie has only once finished a race

without being either second or first. How many races this means in all goodness knows. In 1935 alone he was first in the Junior TT, second in the Senior TT—beaten by a mere four seconds first in the 500cc North-West '200', first in the 500cc Swiss Grand Prix, second to his team-mate, Rusk, in the 350cc Swiss Grand Prix, first in the 500cc Dutch TT, first in the 500cc German Grand Prix, first in the 500cc Belgian Grand Prix, first in the 500cc Grand Prix of Europe (Ulster) at 90.98mph, first in the 350 and 500cc classes of the Spanish TT, and, more recently, has raised the 500cc hour record—the 'Classic Hour'—to 114.09mph. No ewer than nine firsts and two second places in famous international road races in a single year—what a record! And if you talk to Jimmy you will be told that he owes it all Nortons: to the machines, to the directors, to Joe Craig, to the design staff and the Norton mechanics. To get him to talk about himself is next to impossible. There are one or two things I can tell you about him, though. Jim, as all are aware, is a Scot, and hails from Hawick, where he is in partnership with his brother in a garage business. They have a big machine shop; this is, Jim's job, while his brother looks after the sales side. There is a lot of repair work, and that causes Guthrie's difficulty—it is next to impossible for him to find time for any special training when he is at home and difficult to get away for the actual racing and practising periods. He has to rely chiefly upon work to keep him fit—work which often causes him to be still at it until eleven and twelve at night. The last year or two, however, he has really tried to make himself as fit as possible. He used to feel that it was impossible to compete with the younger lads in the Norton stable, such as Tim Hunt and Stanley Woods, and then he decided he would have a shot at it. Few people realise the fact, but Jimmy Guthrie is over 38 years of age. As I say, he decided to become as fit as he could. Once or twice a week he goes from Hawick to Edinburgh for 1½ hours' muscle development exercises...While obviously the endeavour is to develop his wrists and arms, the important point is to develop his body as a whole, for in these days perfect fitness is essential to the road-racing man who is to hold his place at the top of the tree. What Jimmy finds really difficult is giving up smoking. He tried to do so last Christmas, ready for the TT in June, but never succeeded for more than a week or two, though he has managed to cut the number of cigarettes down to two or three a day. On the particular day I had this chat with him the racing season was a thing of the past, and the number he smoked—well, I didn't count! In addition, Jimmy likes to have an hour or two each day on a motor cycle, but nowadays it is impossible to do any batting, he says, in view of traffic conditions and the speed of modern racing machines; therefore there is no chance of developing judgment at high speeds or indulging in true racing-type cornering. Since Guthrie is not a mere jockey but a real mechanic as well as brilliant rider I asked him how much work he does on his machines. In the Isle of Man, he said, all he any has to do is to ride, but on the Continent, if there is work to be done, he and Joe Craig do it. Fortunately, he added, there is seldom any need for anything except changing the carburetter jets to suit the the local fuel and conditions, and fitting new chains and tyres—fortunately, because there is very little time in view of the travelling from one race to the next and the need for getting in some practice on the fresh circuit. Since the Norton men do not necessarily ride the same machine each time I asked Jimmy about the alterations they have to make to the riding positions. I learned that one and the same position suits every member of the quartet, so there are no worries in this direction. From that I passed on to questions about Jim's own riding position—there are few men who squash themselves so fiat along their tanks and. thus cut down wind resistance to the same degree. Had he ever tried lying down to it in front of a mirror? No, he hadn't, and he mentioned that you cannot keep down to it when at speed in the same way that is possible when the machine is stationary. He added that one day he had to have three stitches in his chin—that was before his tank top was covered in rubber. 'Even now you get some clouts,' he said, feeling his nose tenderly as he did so. While on this question of lying down to it, he stressed again the need for

fitness. 'The young man who is naturally fit has a big advantage over the older hand,' he added, 'especially in a massed start, for he has started and is away yards—miles—before you are.' Of course, we discussed riding methods.



'Un artisit Leyden produced this wonderful portrait of the great Jimmy Guthrie.

You have or to go quickly in the TT right from the signal to start, said Jim. He used to have trouble in this direction—it took time before he became warmed up to it—but now, he says, the one thing he has to guard against is that he does not go too quickly—he has to hold himself in until he has settled down and feels he has got everything weighed up. He blames old age—or blesses it!—for teaching him that wild riding does not pay. Twice he came off this year, but in neither case was it wild riding. The first time was in the Leinster '200'—he had had no practice and came off on a patch of loose stones—and the other occasion was avoiding his team-mate, Walter Rusk, who had fallen at Aldergrove in the Grand Prix of Europe, that is, the Ulster Grand Prix. Nowadays, he says, one spends most of the TT practice period batting round the course trying to find the bumps and the way to miss them. On the bends, however, the line that can be

taken is very limited, and often it is quite impossible to miss them. Within limits, Jim says, it is quicker to charge over the bumps than to take a bad line. This year he tried almost every conceivable course down Bray Hill. He even walked down it several times in order to spot the bumps and find a new route. It was hopeless, though, for he could not spot the bumps barring the obvious ones, and those he knew already! Finally, he gave up the task of finding a smooth route as being a bad job. Slow corners are the ones he does not like. On hair-pin bends, he says, he never seems very clever, and always feels that he is going slower than the others. Guthrie's practice is to lighten down the steering damper until he feels that it is just gripping—so that with the front wheel off the ground the handlebars are stiffish to turn—just that and no more. All the damper does is to act as a steady; an important one, as will be realised when I mention that two years ago in the Island his damper broke and dropped him from third to fourth. I asked him whether he thinks it worth while adopting a touring riding position when one is actually rounding a corner in a race. His reply was: 'If you are lying down to it and then start sitting up, you become all upset—you are in an unaccustomed position and therefore are better off if you keep as you were.' He believes in lying down to it the whole time, even in cases where one is lucky enough to have a useful lead. Then the engine should be saved rather than the cramped limbs of the rider. In the TT, he said you have got to use all the power and speed that is available unless you have a good lead—as he thought he had when he came to the last lap of the Senior (which is especially interesting in View of Stanley Woods' comments). In a massed-start race, however, you know exactly where you are; if you are in front, instead of sitting up to it, you save the engine by keeping in as high a gear as possible—you don't rev the engine up so high in the gears as you would if pushed, and you ease the throttle back once the machine has got up to its speed But changing up sooner than you would do if pushed, he says, wastes a surprising lot of time even on a single lap. When changing up Jimmy always eases the clutch slightly and snaps the throttle closed. Coming into a bend he swishes in with the throttle shut and changes down with the clutch right out as the revs drop to a suitable speed for the engagement of the next lower gear. The clutch has to come right out in this case because the back wheel is driving the engine, and unless the clutch was out there would be clashing of the dog-clutches in spite of the closeness of the racing-type gear ratios. An interesting point Guthrie made is that when coming into a really slow corner you cannot go down to bottom gear straightaway—you have to engage each gear until such time as the rear wheel will take it without tending to lock, and therefore to skid. Changing down, even with a very close-ratio gear box and considerable care, provides just about as much braking as the rear-tyre adhesion will stand. As regards the actual brakes, at least 90% of the work is borne by the front brake. It is practically impossible, he says, to lock the front wheel when braking in a straight line on a dry surface on, say, the Isle of Man course. Naturally, all braking has to be accomplished in a straight line, unless you misjudge a corner—then you certainly can't use the front brake, but most tread very lightly on the rear one, and get out of the mess as best you can Those are Jimmy's words, not mine, and are worth bearing in mind by every solo rider in the country. Finally, I popped question after question to him. Pit work: Jimmy told me that stopping dead at one's pit without wasting a second is one of the most difficult things imaginable, and totally different from slowing down for a corner. 'Have you ever experienced rolling with large section tyres?' No he said; there was none at all with the 3.50in section rear tyres used on the 500cc Nortons. What of the future as regards racing design?' Jimmy believes that the 'multi' must come...We parted, he to Scotland, and I to the office. Full marks to you, Jimmy; • you—quiet, modest you—and your famous Nortons have done more to uphold British prestige over the past two years than anyone else."

FORGET THE WILD ONE. Forget Easy Rider. No Limit, starring motorcycling ukulele maestro George Formby, and featuring footage from the 1935 TT, is the best motor cycle film ever made. Our George builds the Shuttleworth Snap, a modified Rainbow (actually a 1935 350 Ajay), takes to it to the Island, falls off Mona's Queen, makes a record breaking practice lap when his throttle jams, throws the Snap off a cliff, wins a works ride on a Sprocket (actually an Ariel 350) nearly misses the start of the race, punches a bullying motor cycle racer in the snoot, pushes his bike over the line to win the race, wins the girl, wins a Sprocket agency and, of course, sings (all together now): "La la la la la-la going to the Teeee Teeee ra-ces". You can hear the song at <a href="http://www.youtube.com/watch?v=eayllywNxUw">http://www.youtube.com/watch?v=eayllywNxUw</a> and see highlights of the film at <a href="http://www.youtube.com/watch?v=CwW0hElU6Kc">http://www.youtube.com/watch?v=CwW0hElU6Kc</a>. Eeeee turned out nice again!



The Shutleworth Snap and, on the Island, a rather fine statue of George Formby.

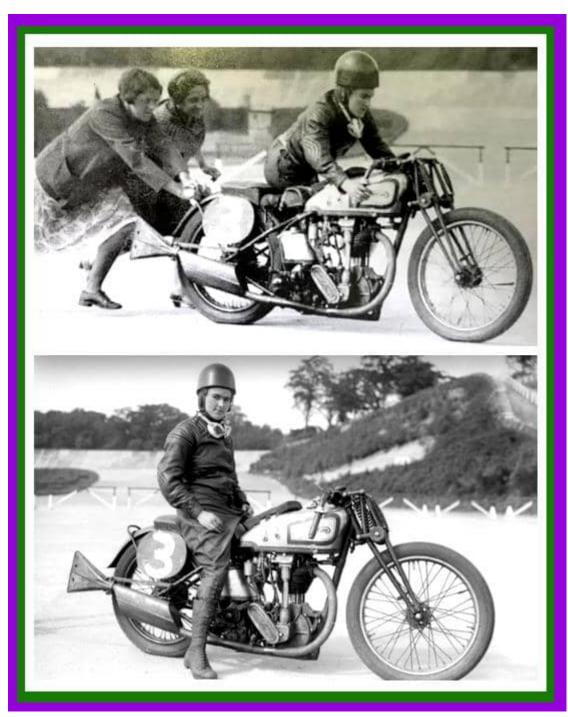
"NOEL POPE, A NOTED POET and novelist with a penchant for fast motor cycles, was entered for the Senior TT but when it was delayed by bad weather he left the island to keep an appointment at Brooklands. Pope had bought Ted Baragwanath's supercharged 996cc JAPengined Brough Superior outfit and set it up as a solo; he was after the Brooklands track record. And, as the Blue 'Un reported: "After six years the Brooklands motor cycle lap record has been broken. A young racing man who only recently started riding very fast motor cycles has raised the speed to over two miles a minute—from 118.56mph, which was the record achieved by JS Wright on June 1st 1929, to 120.59mph. The feat is compensation for a disappointment. NB Pope, the man who now has the distinction of being the fastest Brooklands rider and the first to exceed 120mph for a lap, was to have competed in the Senior TT, but owing to the postponement he had to give up all thought of riding and return to the mainland. None but those who have an intimate knowledge of the track can realise what the achievement means. Brooklands is no billiards table. Even at touring speeds it is bumpy. Pope lapped in a series of breath-taking leaps. Thanks to the steering of his machine and his own grit this private owner set up a new Brooklands milestone." He was awarded a BMCRC 'Super Award' for lapping at over 120mph. The same BMCRC meeting included s three-lap handicap: "Miss B Shilling on her selftuned 490cc Norton ran through the field, and with one lap at 102.69mph provided a somewhat unexpected win. CR Bickell on the 499cc supercharged Ariel Four was second NB Pope (996cc Brough Superior), who covered his third lap at 116.38mph, third...The Brough Superior that EC Fernihough wheeled to the line for the second event, a two-lap handicap, looked very hushhush in its sacking. Ferni was in his usual place at scratch and was giving 1min 32sec to the limit man, HR Nash (123cc New Imperial). Nash kept the lead until the end of the second lap,

when he was passed by EC Garfield (996cc Brough Superior sc). Close behind Garfield was EG Bishop (496cc Exclesior sc) and the three crossed the line with only yards between them—really clever handicapping."



"NB Pope with the

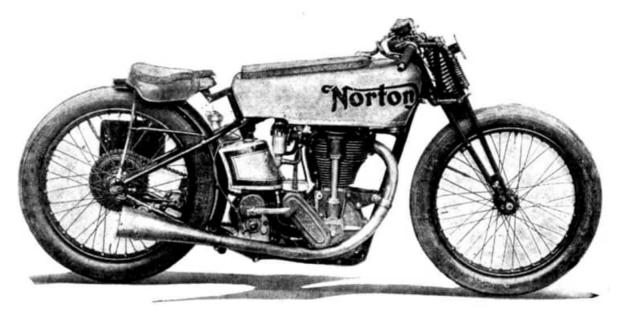
supercharged 996cc Brough Superior on which he raised the Brooklands lap record to 120.59mph. He is the first winner of the BMCRC 'Super Award', which is for lapping at over 120mph."



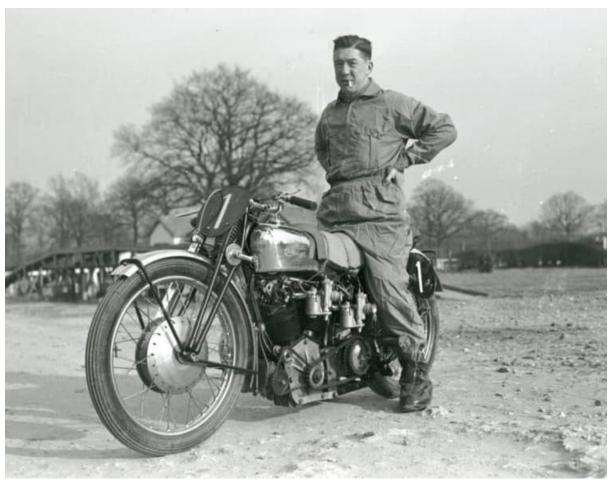
Beatrice 'Tilly' Shilling had an "unexpected" win at Brooklands. She was also one of three women (with Theresa Wallach and Florence Blenkiron) to win a Brooklands Gold Star. Three years before these snaps were taken she had become one of the first two women to studying engineering at The University of Manchester (I'd bet that her mates push-starting the Norton were fellow engineers). And five years after these snaps were taken, while working at he Royal Aircraft Establishment (RAE) in Farnborough, she designed a fuel restrictor for Merlin engines that improved the performance of Spitfires and Hurricanes and helped us win the Battle of Britain. It was called the 'RAE restrictor'; appreciative RAF types called it 'Tilly's orifice'.



Within a few weeks of Pope's record breaking Brooklands lap Eric Fernihough won the only other 'Double Gold Star' to be awarded, while raising the record to 123.58mph (he also set a standing-start record of 104.63mph). Note his 'scalded cat' mascot on the nose fairing of Ferni's blown BruffSup.



The Guzzi twin's Senior TT win did not weaken Norton race chief Joe Craig's faith in his singles. After all, Nortons had registered another hat trick in the Junior, and following his TT disappointment Jimmy Guthrie went to Montlhery where his dope-fuelled cammy Norton set 500, 750 and 1,000cc class records at 114.092 miles in an hour. He also set a 50km record at 114.615mph—his total was nine world records in a day. And at the Manx GP (which was, for the first time, designated the Grand Prix of Europe) Guthrie averaged 90.98mph on his way to a Senior victory, setting a world racing record.



Georges Monneret, nicknamed 'Jojo la Moto', pictured at Montlhéry aboard his alcohol-fuelled Koehler-Escoffier that turned out 78hp and was clocked at over 124mph. During the 1935 season Jojo set 350cc world sidecar records for 100km and 100miles aboard a 350cc Prester-Jonghi and won the French 500cc championship. In a 32-year career he set 183 world records and won 499 races.

"A MACHINE WITH AN ENGINE of less than 100cc capacity is too small for serious motorcycling. This is the view held by many; indeed, it has been suggested more than once in these columns that such machines are only suitable for runabout work in flat districts. The 97.5cc DKW submitted to The Motor Cycle for test makes such opinions out of date. The writer would willingly set forth on this machine on a tour covering the length and breadth of Great Britain. And the tour would not be accomplished at a crawl, for the machine tested will keep up its 30 to 35mph with ease and thus maintain its position in any normal traffic stream. At first sight the DKW appears closely related to the continental velomoteur, chiefly because of its large wheels and small tyres. The minute engine is a two-stroke with a flat-topped piston is built in unit with a three-speed gearbox. Gears are employed for the primary drive, which is automatically lubricated by petroil from the engine, and since the magneto is incorporated with the flywheel, there is only one chain—the driving chain to the rear wheel. Lighting is of the direct type from coils in the flywheel, with a dry battery as a standby for parking purposes. Small internal expanding brakes (of 4in and 5½in diameter) are fitted in the front and rear wheels, which are shod with 26×2.25in tyres. The remaining features of the specification are a softtopped saddle, a single-lever carburettor (without strangler), a special form of air cleaner on the carburettor air intake, pressed-steel, single compression spring type front forks and a central stand fitted with a spring which tends to flick the stand over dead-centre position when the

machine is pulled backwards. Use of the stand is almost the easiest task imaginable since the machine in running trim was found to weigh only 119lb...Here is a machine with the performance of the popular type of small car plus the ability to climb hills at a reasonable speed. Britain has more than one engine of a similar size. At the moment they are lying more or less dormant. Perhaps the experiences we relate will arouse fresh interest in the small motor cycle...machines of this size, if they give satisfactory service, can form a valuable stepping-stone to larger and more expensive motor cycles."



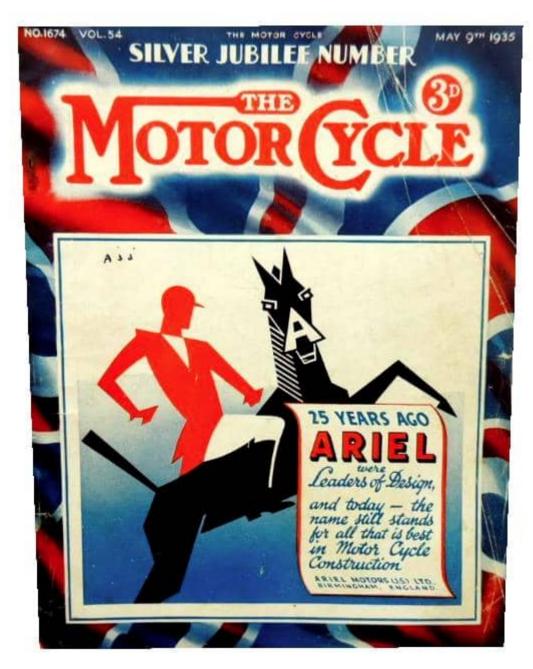


"Such was the power of the engine that the front wheel lifted well clear of the ground if the throttle was opened and the clutch let in too quickly." (Right) "A particularly neat design of pressed-steel fork is fitted. The headlamp threw an excellent flat beam on night runs."

"WITH A DOZEN OR MORE 1936 programmes announced, it is interesting to pause for a moment to consider where the improvements lie. So far no startlingly novel machines have emerged from the secrecy of their chrysalids; instead there are whole ranges of standard-type mounts which display numerous new features, some of them of great utility. To the hard rider the features of, perhaps, greatest appeal are controlled battery charging and the widespread adoption of larger fuel tanks. It is probable that before long all new dynamo-equipped motor cycles will be fitted with this form of control which regulates the dynamo output according to the requirements of the battery. It will probably he the greatest boon since the standardisation of electrical equipment. For 1936 even small-capacity motor cycles will, in many cases, have tanks capable of holding three gallons of fuel. Often the cruising range on a tankful will be 250 or 300 miles. Ten years ago many a machine would only accommodate a gallon and a half, and the quantity that had to be purchased at each of the many stops for filling up was a single gallon! In addition, on machine after machine there are improvements in the riding position and modifications to ensure that routine adjustments, such as the valve clearances, can be made easily and quickly. A number of 1936 motor cycles incorporate some form of motif. Care, too, has been taken to ensure graceful lines. Particularly is this the case with the new and larger fuel tanks...the outstanding feature of the new models is the care and attention that have been

lavished on them to make them more 'rideable'—to make them 'motor cycles for motor cyclists'."

KING GEORGE V'S SILVER Jubilee led to countless press reviews of his 25-year reign. The Blue 'Un's contribution was a review of the 1910 Olympia show, with a reassuring list of marques that had exhibited there and were still in business. They included: AJS (albeit under Matchless ownership), Ariel, BSA, Calthorpe, Douglas, Excelsior, FN, James, JAP, Matchless, Montgomery, New Hudson, Norton, OK, Panther, Royal Enfield, Rudge, Scott, Triumph and Zenith.



The Blue

'Un, like every other periodical, published a loyal address to the throne.

BSA MARKED THE Silver Jubilee with the launch of the Empire Star.

"MIGHT HAVE GONE WEST: A man was fined  $\mathfrak{L}2$  at East Ham for smoking while driving a petrol-tanker lorry."

PORTIA UP TO DATE: Summoned at Plymouth for disobeying a police signal, a woman motorist asserted that she hadn't seen the signal, and, therefore, she couldn't have disobeyed it! Fined an illogical 5s with 5s costs."

"PARLIAMENT DISCUSSES 'RIBBONS: In answer to a question in the House of Commons last week regarding 'ribbon building', the Prime Minister said that a Bill dealing with the matter 'will be introduced as quickly as possible."

"HEN-PECKED?: A Parisian cyclist who sued the owner of a hen which swerved under his front wheel and upset him failed in his action. The Court maintained that the cyclist 'tried to pass a hen that was keeping on the correct side.'"

"TRIUMPH OF DIGNITY: A Marylebone Police Court, during a pedestrian crossing case, a motorist made the novel plea that he was anxious not to imperil his new £1,000 car by a possible skid, so he hooted instead of stopping. Stranger still, the summons was dismissed!"

"BEACONSCIENCE: The Borough Treasurer of Kingston recently acknowledge the receipt of 5s.3d as 'conscience money' for the breakage of a Belisha beacon." [Younger readers might care to flick back to 1934 to discover the source of their alliterative name; sub-editors will recognise the inclusion of a story as an excuse for a headline. All subs enjoy portmanteau words, and how often do you get the chance combine 'beacon' with 'conscience'?—Ed.]

THERE WERE 48 MARQUES at the Milan show exhibiting 227 models; the major trend noted by tye B;ue 'Uns correspondent was a move from 175s to 250s. There was no Paris Salon; the French industry concentrated on conventional 250s and 500s, as well as swarms of *velomoteurs*. In Germany the motor cycle industry, like the rest of the country, had fallen under strict government control, with various firms concentrating on specific classes—11 margues covered everything from two-stroke tiddlers to the big BMW and Zundapp flat twins.

ITALY AND GERMANY declared all motorcycles free of roadtax – and Italian motorcyclists wouldn't even need driving licences.



Juvenile fascisti ride in a parade in front of Mussolini—if you want to include kids on motorbikes in a parade it makes sense to do away with licences.

THE JAPANESE GOVERNMENT was also taking an interest on motor cycles. The Japanese Automobile Manufacturing Law excluded foreign companies and foreign capital. The government said: "The motor vehicle industry is of major importance both for industry and national defence. Entrusting this industry to the control of foreigners is unthinkable." To hatsu was nominated as the sole manufacturer of small petrol engines to the Japanese military and developed a range of rotary-valved two-strokes ranging from 48-248cc. Rukuo began production of Harleys under licence for supply to the Japanese military.



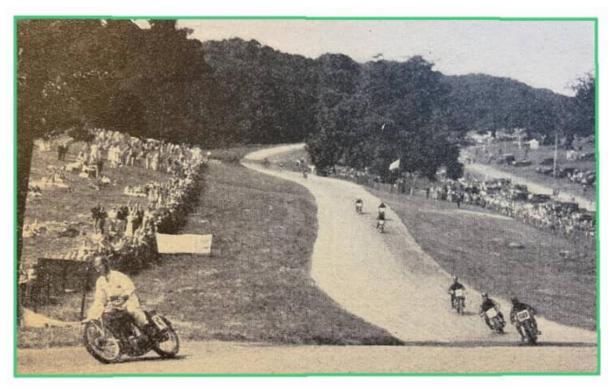
"THE HOPES OF THE DERBY Club officials, so far as the weather was concerned, were amply fulfilled on [August] Bank Holiday Monday. A brilliant sun was tempered by a light breeze, and conditions were ideal for racing. Donington Park looked lovely on this bright summer day, but, at first, there was a quietness about the place that seemed a little unusual. The crowd was only a thin one when the racing started, but hopes were held of a bigger muster as the day wore on. The finishing line is now graced with a beautiful Belisha beacon, but few pedestrians availed themselves of the crossing! A fine entry was received for the first event—a race for novices—and it was run off in two heats, each over five laps. The first heat was well contested, with HL Brooke (499cc Rudge) in the lead throughout, and he was never seriously challenged. However, there was a fine scrap all the way for second place, between SW Cooper (496cc Sunbeam) and WG Wright (348cc Velocette). Wright wrested the 'lead' from Cooper on the third lap, but Cooper was not to be denied, and passed his rival in a fine effort on the penultimate lap, and was not over-taken again. In the second heat, nobody could come near AJ Wellsted (493cc Excelsior). This rider established a wonderful lead on the first lap and was 'miles' ahead at the end of the race. The second man, WA Jordan (348cc Norton), occupied a gap in the 'field', being a long way behind Wellsted, but a long way in front of HS Green (497cc Ariel). Green, however, did not retain his position, for GA Chamberlain (348cc Norton) went ahead of him towards the end. As appeared obvious, Wellsted proved the winner of the race, with two heat-heat men, Brooke and Cooper qualifying for the places.. Result, Novices' Race: 1, AJ Wellsted



"The sidecar race saw a thrilling ding-dong battle for the lead between K Collett (490cc Norton sc)—in front in the photograph—and WH Rose (596cc Norton SC). Collett emerged the vicyot despite his mount's lesser cc."

(493cc Excelsior) 63.93mph; 2, HL Brooke (499cc Rudge); 3, SW Cooper (495cc Sunbeam). Next on the programme was the '250' race over ten laps, run in a single heat. Our old friend Paddy Johnston (246cc Cotton) celebrated his first visit to Donington by leading the race all the way, doing pretty well as liked with the rest, of the entry. His nearest rival was TA Hampton, on a camshaft OK Supreme, but Paddy had the legs of him and romped home an easy winner. There was very little of interest in this race, for after the fourth lap the order of the procession—even of the back markers—remained unaltered, SV Smith (247cc Excelsior) being a consistent third, a short distance behind Hampton. Result, 250 Race: 1, P Johnston (246cc Cotton) 59.12mph; 2, TA Hampton (246cc OK Supreme); 3, SP Smith (247cc Excelsior). There was another run-away win in the 350cc race, M Cann (348cc Norton) being quite invincible. Probably the story would have read differently had not HL Daniell (346cc AJS) had the misfortune to stop his engine at Starkey's Corner when he was lying third on the third lap. At first CVM Booth (348cc Velocette) set the pace, but after the end of Lap 2 he was forced to play second fiddle to Cann. He did this throughout the race, riding very consistently. Daniell restarted a long way behind, but by dogged persistence he rode from 15th on the 4th lap to 5th at the finish—not a bad effort. WG Wright (348cc Velocette) came along well to finish in 3rd place after a scrap with N Croft (348cc Rudge), who was later forced to retire. **Result, 350cc Race:** 1, M Cann (348cc Norton) 65.20mph; 2, CVM Booth (348 Velocette); 3, WG Wright (348cc Velocette). There was more excitement in the 500cc solo race, in spite of the fact that Norman Croft (499cc Rudge) ran away with it. Indeed, it was this running away that provided the excitement, for, in riding as he did, Croft smashed a 10-lap record by a handsome margin, and at the same time won the Craner Bowl for the best time of the whole year. Heat 1 of the race was not very interesting, but a word must be said for WG Wright (348cc Velocette), who was riding splendidly with a long lead when he had the misfortune to fall and bend things. He carried on and finished third in his heat after a

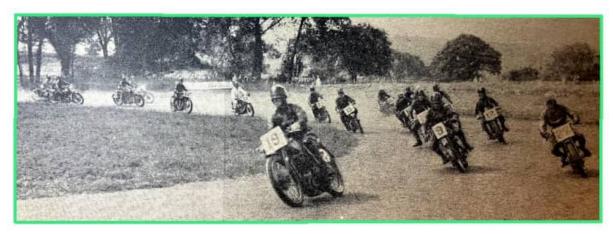
fine effort. Nobody in Heat 1 was fast enough to figure in the final placings, Croft (499cc Rudge), Cann and HL



"Number 13, but well away—PR Warren (246cc New Imperial) snapped at The Hairpin during the 25-mile race for 250cc and 350cc machines."

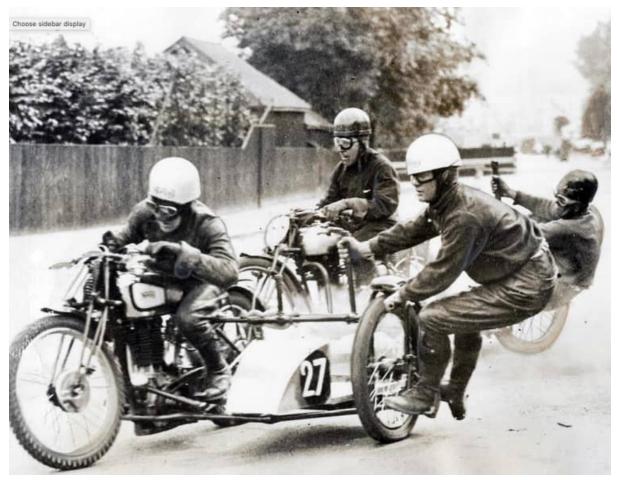
Daniell (490cc Nortons) setting too hot a pace for them. Daniell for once was outridden; he did not seem to be at home on a new machine and steadily dropped away from the two leaders. It would, in fact, have been a very good man indeed who could have held Croft in this event, and he deserves a full measure of praise. Result, 500cc Race: 1, N Croft (499cc Rudge), 67.1mph; 2, M Cann (490cc Norton); 3, HL Daniell (490cc Norton). The 600cc sidecar race was a grand one—a real fight from start to finish—with Kim Collett (490cc Norton s.) rather dominating affairs. He was not allowed to have it all his own way, however, for WH Rose (596cc Norton sc) was.chasing him madly, and actually pushed his nose in front and held it there for three laps. Collett, thinking this was hardly good enough, really put his skates on, slid ahead again, and refused to be caught thereafter. All this time Rose was being harried by LW Taylor (490cc Norton sc), and it was all he could do to keep in second place. The finish was marvellous. These three riders crossed the line in a bunch, and a good-sized blanket would have covered them all. Result, 600cc Sidecar Race: 1, Kim Collett (490cc Norton sc) 56.66mph; 2, WH Rose (596cc Norton sc); 3, LW Taylor (490cc Norton sc). On paper the unlimited sidecar and threewheeler race looked good, for the interest included Collett and his big Brough, and Henry Laird on his supercharged Morgan. Laird started with a handicap of 100sec, and everyone was eager to see whether he could catch the rest of the field. He set off at a great pace with the flying Brough as his object. But success was denied him, for things happened to the engine and he was forced to pack up after a couple of laps. Meanwhile Collett was going wonderfully well and had attained a tremendous lead. On the fifth lap, however, Rose was almost on his tail, and it was obvious that something was wrong. Something was wrong. Collett did not appear again, and Rose and Taylor were left to fight it out. They were the only two finishers, and less than two seconds separated them at the end. Result: Unlimited Sidecar Race: 1, WH Rose (596cc

Norton sc) 55.99mph; 2, LW Taylor (490cc Norton sc). Lastly came the unlimited solo race, and Daniell was obviously out to beat Croft this time. Croft, however, was in altogether too joyous a mood, and although Daniell got in front for a few seconds Croft romped ahead again, riding a great race. Cann battled along in great style, coming in third, and these three went quickly enough to deprive all others but one of a replica. **Result, Unlimited Solo Race:** 1, N Croft (499cc Rudge) 66.66mph; 2, HL Daniell (490cc Norton); 3, M Cann (490cc Norton); Replica, CVM Booth (348cc Velocette).



"Study in cornering styles in the 12-mile race for novices. Leading is ER Taylor (348cc Norton), followed by ERT Arnold (346cc AJS) and, on the extreme outside of the bend, NG Pratt (348cc Velocette)."

THE FOURTH BRIGHTON SPEED TRIALS were hosted by the Brighton & Hove Motor Club along a half-mile straight on Madeira Drive. Cars dominated the trials in numbers, if not performance, and Eric Fernihough dominated the motor cycle classes. He won the 250 and 350cc classes on Excelsior-JAPs; CB Bickell won the 600c class on a 499cc Ariel and Ferni' rode 996cc Brough Superior-JAPs to win the unlimited solo and sidecar classes and, finally, the Special Class at 88.7mph—and that was the fastest run of the day. The fastest car run was 79.41mph by RO Shuttleworth in an Alpha Romeo; Forrest Lycett managed 66.18mph in an eight-litre Bentley and John Cobb's mighty 23-litre Naipier-Railton could only manage 78.44mph. *Motor Sport's* man at the seaside noted: "Fernihough's speed of 88.7mph on a solo Brough-Superior motor-cycle will give further material for the bikes vs cars acceleration controversy, and only a Merc or an Auto-Union could have rivalled this performance."



North Londoners got their holiday thrills at Alexandra Palace.

"TO HOLD AN OPEN TRIAL a long way from home requires courage and foresight, otherwise detail is apt to be faulty on the ground chosen. The Wood Green and District MC, in travelling all the way from the northern edge of London to hold its sixth annual Clayton Trophy Trial, was certainly not lacking in boldness in the conception, and, as everyone said who took part last week-end, the organisation lacked nothing in perfection. There is always a good chance, too, when a trial is run on 'foreign' ground, of making a gift of the main pots to some of those who know every gully and pitfall of the selected obstacles. This did not exactly happen in the case of the Clayton Trophy Trial, because Ken Wilson, the winner, probably was on quite strange ground. But he does knew the tactics necessary for rough and stony going. Ken Norris, the runner-up, rides regularly in this territory, and might have been tipped as a likely winner. Two of the class award winers, at any rate, have been trained on rocks and boulders. It was quite a short affair as open trials go. The route was only about 36 miles long, starting and finishing at Longnor, near Buxton, and never getting much more than about five miles away from that somewhat quiet village, but there were more than 20 observed sections, not to mention a 'special test' section, observed only to decide ties; this section had a dozen sub-sections, the shortest of which was only about three yards! Timekeeping did not enter into the affair at all. As a competitor you just kept going and only retired (a) if the model wilted, (b) if you 'fell behind the general body of competitors', and (c) having done so were overtaken by the rear marker marshal—who presumably was not expected to fall by the wayside himself! Some of the officials had ridden all



"An uncomfortable moment for TW Wright (348cc Norton) on Hollingsclough. Note the large boulders immediately after the crank case of the machine."

night to reach their jobs, and one of these, who was to do a large share of route marking, discovered a broken fork spindle on arrival at Longnor. Did the organisation fall down? Not likely! A tommy bar was pushed through the holes, the ends burred over and the job carried through according to plan. Of the 84 entries the North provided some 30 or so, the Midlands a handful, and all the rest were from the South, with, naturally, South Midland Centre riders predominating. Probably all except the Northern riders were more at home on mud and slime than on the bumpy, rocky stuff that the Longonor-Buxton area presented last Sunday. For the dry weather and brilliant sunshine had intensified the jaggedness of the outcrops and loose stones. But no one was daunted, and non-starters were very few. E Harris (347cc Matchless) came all the way from Middlesex and then could not start because of a seized fork spindle. F Drew (247cc Levis) was likewise delayed on his way from Warrington with a seized exhaust valve and arrived just too late. F Flintoff (493cc Sunbeam) had had some mishap the day before, so it was said, and so the Bradford Club started one short. Hollinsclough, near Longnor, was the first observed point, and probably the most difficult problem of the trial, and although then route had been kept 'secret' some hundreds of spectators were either in the know or had taken a chance, and out of over 70 ascents they saw only half a dozen make really clean climbs of the entire hill. AC Lane (490cc Norton) and G Leonard (490cc Norton) both got off the route when approaching Hollinsclough, and as they were turned back KB Norris (248cc Red Panther) started the ascent. 'Ah!' said the locals, 'our man on his own ground will show how it can he done'—but he footed a little! Then NR Illingworth (248cc Royal Enfield), probably a perfect stranger to the hill, rode it as



PG Handford (348cc BSA) tackles Hollingsclough in confident style before a line of critical spectators."

prettily as one could wish to see, standing on the rests, motor pulling steadily, and checking every rock-induced swerve before it got out of hand. Colin Edge (348cc Norton) was fast and used his feet, while JS Boote (348cc Panther) was also fast—too fast—and leaped from ridge to ridge with mighty crashings of this and that about the model. Then KD Haynes (347cc Matchless) from Wood Green dealt with the worst section in a fussless and very easy way; his machine steered just so, and was quiet about it, too. His fellow-clubman, TW Wright (348cc Norton), was also steady and did the entire hill without a touch. After that, for a long time, the efforts were monotonously unenterprising, too little gas and too much paddling being the order of things. And the locals were not noticeably better than those who had come from afar. Even S Smith, who performs such prodigies on his 'plain tyre' 1927 Rudge in Cheshire events, put out his plates, while Ken Wilson (348cc Panther)—Scott Trial winner—climbed a vertical bank and dropped back facing downhill. The real Midlands claimed the next no-penalty effort, the rider being LG. Holdsworth (496cc New Imperial), and he was shortly followed by WE Garrod (347cc Matchless) and R. Davis (343cc Triumph), all being sure and quite fast. Much more footing, bank climbing, sitting down suddenly and engine losing followed, until the last man of all, SE Breffitt (493cc Triumph), made as good a climb as any of the few who had lost no marks; how he pulled

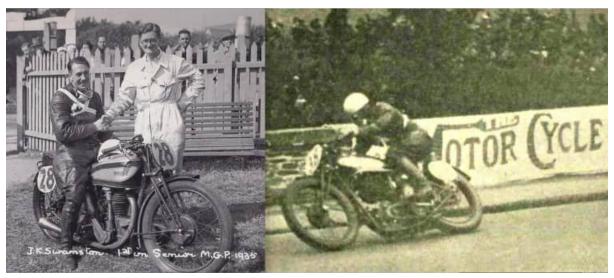
his front wheel up out of a most awful slide is known only to himself—if he realised at all what happened! By the time Breffitt was dealing with Hollinsclough the early numbers had completed the 36 miles and had checked in at Longnor again. They had dealt with Little Hollins, Washgate, Cheeks and various other less well-known spots. Even though some of the observed points were unspectacular, thereby disappointing the news-reel men, who could not understand a trial without water-splashes, marks were not earned, and they all counted at the finish. The maximum marks that could be got (marks were 'earned', not 'lost' in this event) was 170, and four people tied with this figure; they were KB Norris (248cc Red Panther), K Wilson (348cc Panther), R Davis (343cc Triumph) and SE Breffitt (493cc Triumph), and they had to be separated by reference to the special observed section. Results: Clayton Trophy (best performance), K Wilson (348cc Panther); Le Vack Cup (runner-up), KB Norris (248cc Red Panther); Easterbrook Cup (best Wood Green MC member), KD Haynes (347cc Matchless); 250cc Cup, TA Kitching (249cc Triumph); 350cc Cup, R Davis (343cc Triumph); Unlimited cc Cup, SE Breffitt (495cc Triumph); Tankard (best novice), H Cartwright (348cc BSA); Tankard (best Wood Green MC novice), PG Handford (348cc BSA); Tankard (best performance on pre-1930 machine), S Smith (1927 499cc Rudge); Club Team Prize, Wood Green 'A', KB Norris (248cc Red Panther), KD Haynes (347cc Matchless), EW White (348cc Norton); One-make Team Prize, Wood Green Norton, FV Chambers (348cc), EW White (348cc), LR Surtees (348cc). First-class Awards went to the top 30% of starters other than trophy winners."



"Playing for safety. LR Surtees (348cc Norton) uses his feet well and truly on the rock-strewn Hollingsclough."

THE MANX GRAND PRIX Junior and Lightweight classes were run together with 30 350s and 24 250s on the grid. Nortons and Velos formed the bulk of the Junior entry, with a Rudge and a brace of Ajays. R Harris (New Imperial) won the Lightweight class at 68.58mph; HM Rowell (Rudge) was runner-up, despite running out of fuel and pushing in from Governor's Bridge. CAW Darno (Cotton) came third. As expected, Nortons dominated the Junior race. Freddie Frith won

at 76.02mph; he was followed home by B Darbishire, JK Swanston and JH Blyth, all on Nortons; WA Rowell was 5th on a Velo with T McEwan sixth on yet another Norton. Nortons also dominated the Senior MGP. Frith was on course to score a Junior-Senior double until the final lap when J. K. Swanston scorched round at a record breaking 81.84mph to finish 1min 17sec ahead of Frith, who had ridden the second half of the race with a broken clutch lever. Third place went to SB Darbishire, ahead of A Munks, R Harris and TH Blyth. They were all riding Nortons, and Blyth's was a 350.



JK Swanston looks understandably delighted with his final-lap win in the Senior MGP. (Right) Freddie Frith gets down to it en route to winning the Junior—but for a broken clutch lever he would probably have won the Senior too.;

COLONEL TE LAWRENCE (of Arabia) died following a crash on Brough Superior SS100. The story was that he swerved to avoid avoid an errand boy's bicycle; in recent years investigators have suggested there was more to it and have produced some intriguing theories which are beyond the scope of this timeline. Another motor cycle accident took the life of Norton designer Arthur Carrol.



Lawrence met his death aboard one of his beloved Brough Superiors.

WITH THE ROADTAX SYSTEM weighted in favour of 250s they now accounted for a third of all motorcycle registrations. The tough economic climate also led many manufacturers to drop high priced large-capacity models. Coventry-Eagle, for example, whose 988cc JAP-powered Flying 8 had challenged the BruffSup SS100, now majored on an advanced 250, the Silent Pullman Two-Seater. Available as a (Villiers) twostroke or (Blackburne) fourstroke, the Pullman featured full enclosure with a a leafsprung monocoque frame.

RUDGE CAME UP WITH a trials/scrambles version of its four-valve Ulster based on the bike Bob McGregor rode to victory in the Scottish Six Days Trial.

WITH MORE THAN 500,000 vehicles laid up for the fourth quarter the Blue 'Un called for roadtax to be replaced by increased fuel taxes.



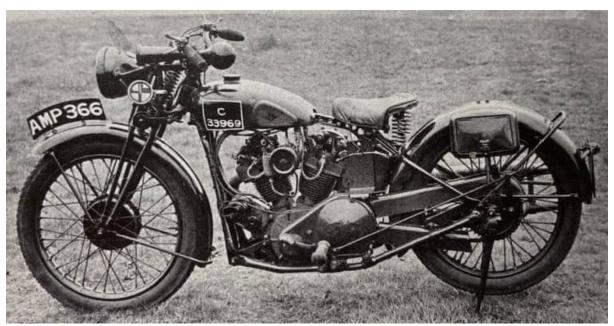
These two-gallon petrol cans represent to move from Pratts to Esso. It wasn't hard to take this snap as the cans live within 10 feet where I'm sitting now.

AFTER YEARS WITH NO national speed limit a 30mph urban limit came into force, as did a riding/driving test for all new applicants, initially on a voluntary basis to avoid a logjam when it became compulsory, and anyone who had held a licence before April 1934 was allowed to keep it under 'grandfathers' rights The first person to pass the new test was a Mr Beene.'. Provisional licence holders were required to display red L-plates.

BSA DIRECTOR JAMES LEEK returned from the Leipzig Fair with dire tales of Nazi militarisation—the famous German engineering show was packed with military hardware; SS troops were goose-stepping in all directions. BSA responded to his report by getting back to its Small Arms roots. Gunmaking machinery mothballed since 1918 was cleaned up and large sections of the mighty Small Heath works was soon working overtime churning out rifles and machine guns. The 498cc V-twin produced for the Army was put on the open market.

WAR DEPARTMENT thinking had swung back from twins to singles and a seven-marque shootout was arranged, involving Ariel, BSA, Matchless, New Imperial, Norton, Royal Enfield and

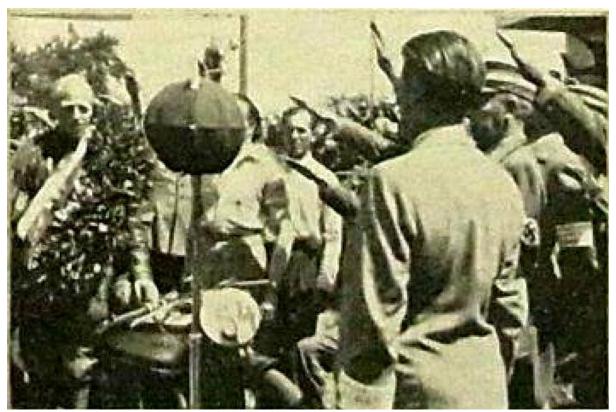
Triumph. Orders were placed for the Norton 16H and Matchless G3, then BSA replaced its unsuccessful W35/6 with the M20.



Three years after acquiring its first BSA 498cc V-twin for assessment the War Office ordered a lightweight version (hence the undersized fuel tank) but subsequently decided a side-va; ve single would be more suitable.

VINCENT-HRD'S NEW high-cam 500, designed by Phil Irving, was offered in three versions: the 80mph Meteor, 90mph Comet and 100mph TT Model. When a factory tester on a tuned Comet was summoned for doing over 110mph the magistrate didn't believe a bike could go that fast and dismissed the charge.

THE MOTOR CYCLE'S MAN at the German Grand Prix, staged "...in the midst of golden cornfields high up in the plains of Saxony" reported: "All night long the streets have been packed with cars, motor cycles and walkers who have come from all parts of Germany...It is a really cheerful crowd, in keeping with the flag-bedecked streets. Everywhere there are Nazi swastikas everyone seeks to be somebody and very important. Hands are constantly being raised in cheery 'Heil Hitler' greetings—one no longer says 'Good Morning' in Germany. Enthusiasm is almost as fever pitch, for your Saxon is one of Europe's keenest motor cyclists—even the willing Nazi Storm Troopers, who sit down in front of the vast crowd, can hardly refrain from standing up as the riders take up their positions on the grid..." The German DKWs and NSUs were certainly formidable machines—the DKW was a 500cc double-split-single two-stroke twin with an extra supercharging cylinder, giving a total of five pistons. Germany had an exotic bike and all the resources of the Nazi state;. Jimmy Guthrie had a Norton one-lunger and British pluck. Of course the Norton won, followed home by a Husqvarna ridden by Ragnar Sunqvist, now comfortably sans appendix. The highest placed German bike was Karl Gall's blown Beemer. Then Walther Rusk rubbed their faces in it by winning the the 350 race on another Norton single. Tyrell Smith rode his Rudge to third place in the 250 race.



"Embarrassed, be-wreathed, Walter Rusk is saluted by Korpsfuhrer Hahnlein, head of the German Motor Sport department and other German admirers while 'God Save The King' is played."



Ragnar Sunqvist

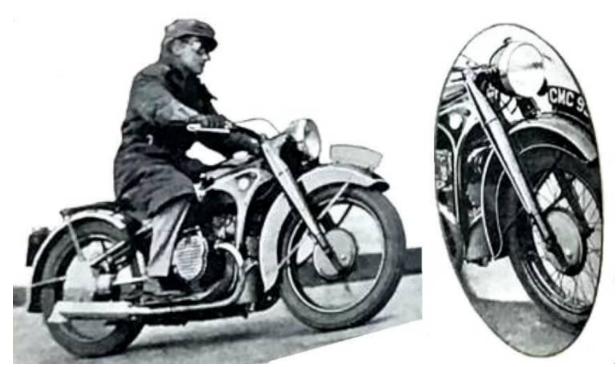
Husqvarna runner up in the German Grand Prix.

STANLEY WOODS RODE a Husqvarna to victory in the Swedish GP.

THE ULSTER GRAND PRIX, generally known as the world's fastest roadrace, was the 1935 Grand Prix of Europe—the first time the courtesy title had been applied to a British race. The title rotated between the major races; the winners of the various classes were declared European Champions. In the Senior Guthrie and Rusk on their Nortons were up against Woods on the TT winning Guzzi. In the Junior Nortons ridden by 'Crasher' White and Johnny Duncan took on Velos ridden by Wal Handley and Ernie Thomas. The Lightweight set British Rudges and New Imps against Continental DKWs and Guzzis. The 250s, 350s and 500s all ran together—the racing was fast and furious. Guthrie and Rusk both recorded standing-start laps over 93mph which annihilated all previous records. But on the second lap the two Norton stars collided, putting Rusk out of the race. Guthrie straightened a twisted mudguard and was back in the running with damaged footrests, gear change, handlebar and front wheel rim. The crash had put him back in

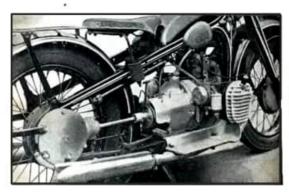
fourth place but he tore through the field to regain the lead with a 95.33mph lap and finished three-and-a-half minutes ahead of Belgian René Milhoux on an FN. Woods' Guzzi had engine trouble from the start. The Norton vs Velo Junior fracas was a clear win for Hall Green over Bracebridge Street: the finishing order was Handley, Thomas, White and local Velo rider Jackie Chambers. Germany's Arthur Geiss won the 250cc class on his DKW, ahead of Bob Foster (New Imperial) and Gordon. Burney (Moto Guzzi). Jim Guthrie's 90.98mph race average set a world record.

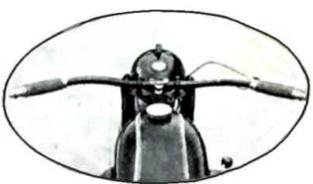
"THERE IS SOMETHING indefinably fascinating about riding a machine which is out of the ordinary. Particularly is this the case if it emanates from a foreign country. We in England are rather liable to have very fixed ideas as to what goes to make a motorcycle and what does not, and therefore, when I was told to take over one of Germany's leading motorcycles for a few days, I was more than excited at the prospect of broadening my views. The machine in question was the 740cc Model R12 BMW, a product of that famous stable, the Bavarian Motor Works of Munich. British readers are familiar with the name of this German marque. Not only has it wrested from us the International Trophy in the International Six Days Trial for two years in succession, but it also holds the world's maximum speed record for motor cycles. From this it will be gathered that, although unorthodox to our eyes, the BMW is a well-proven design with a definitely outstanding performance. Briefly, the R12 is a touring model, a side-valve. It has the BMW flat-twin engine arranged transversely in a pressed-steel frame. The engine, clutch, and gearbox are in one unit, and the final drive is by shaft to the rear wheel. The complete engine unit is undeniably a masterpiece of design and pleasing to look upon. The R12 is fitted with two Amal pump-type carburetters, and has cast-aluminium cylinder heads and fully enclosed valve gear. A point worthy of notice is that the finning around both the inlet and exhaust port is separate from that of the cylinder barrels. A large petrol filter combined with a two-way tap is part of the equipment. No air lever is fitted to the carburetters, yet starting, once the knack has been acquired, was easy, in spite of the fact that the kick-starter works outwards on the near side. Towards the end of the test I found myself able to start the BMW without having to rise from the saddle. When once warm, the engine had the most glorious tick-over that I have heard for a long time; its extreme silence in evoked interest wherever I happened to be. The engine was particularly sensitive to the adjustment of the carburettors. This was most noticeable if one float chamber had been flooded without the other for starting purposes. One cylinder will begin to fire unevenly, with a result that the whole engine unit would tend to swing the frame from side to side. The misfire would



"A low centre of gravity and a smooth running engine made the 740cc side-valve BMW a pleasure to swing round fast bends." (Right) "Telescopic oval section forks and a streamlined rubber mounting for the head lamp are features of the BMW."

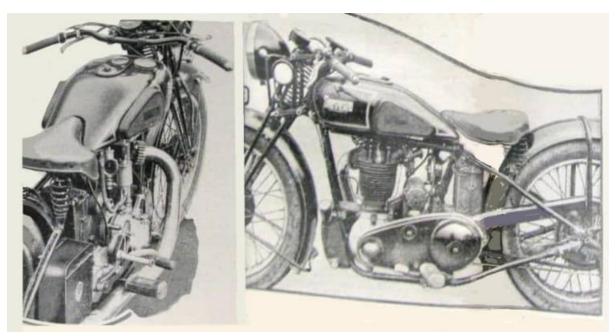
disappear within two or three seconds, after which no noticeable vibration could be felt. In fact, the engine appears to be perfectly balanced and vibrationless throughout its range. I found myself completely at home within a few yards of taking over the machine. The riding position just fitted me, though I doubt if a taller man would find the leg position quite so comfortable on account of the proximity of the air cleaner of the offside carburettor to one's right shinbone. Possibly the fitting of footrests in place of the footboards would obviate this minor point. Incidentally, the foot boards are cast in some extremely tough aluminium alloy, which would withstand the machine toppling over on its side without damage. The gear change is simple, and similar to that of a car. It has an H-type gate combined with the rubber knee grip mounted on the side of the frame. While it was always possible to engage the gears without using the throttle, a completely silent gear change called for a blending of the engine revolutions with those of the gears. The clutch was delightfully lights and smooth in action, although on withdrawal it produced a curious metallic ring. Of the steering, I find it hard to avoid writing too much. The latest type of BMW forks are fitted. They are telescopic in action and automatically damped hydraulically. Apart from appearance—no thin tubing, no external springs, no grease nipples, and no visible working parts—the forks are also perfect in action. When moving slowly in traffic the low centre of gravity of the machine and possibly the wide handlebars help me maintain perfect control."





"The engine-gear box unit is a masterpiece of clean design, while the shaft-drive is noteworthy in its successful application to a surprisingly fast motor cycle." (Right) "Cleanliness is one of the many features of the BMW and the handlebars are not exempted. The only cable visible is the control for the head lamp dipping device."

"ALTHOUGH THE STEVENS motorcycle is of comparatively recent origin, the men behind the scenes have on more than one occasion been responsible for TT winning machines. Therefore, in spite of being a newcomer, the latest addition to the Stevens range—the model LL1—is not in any sense of the phrase "an experiment". Simple, clean-cut lines typify the new model. A sturdy, single-port, ohv 349cc engine is housed in a strong cradle frame. Mounted on the front down tube in front of the crankcase is a large-capacity oil tank. This somewhat unusual position leaves ample room under the saddle for the accommodation of the accumulator. Unfortunately, the model tested suffered from a tight fitting contact breaker cam ring which left the ignition set permanently in advance. In consequence, starting was somewhat uncertain. If the carburettor was merely tickled and not flooded, and a good swinging kick applied to the kickstarter the engine would fire immediately four times out of five. If it failed to do so the best remedy was to push the machine in second gear when it would always start with certainty. In spite of the advance ignition timing, the slow running of the Stevens was good. Silence is also a feature of the machine. In a traffic stop it could be left idling in gear with the clutch withdrawn, and only with difficulty could the engine exhaust be heard. Response to the throttle was immediate, while throughout the range of the engine vibration was negligible. One noticeable peculiarity was that at engine revolutions corresponding to 48mph in top gear the front fork spring would vibrate, its centre moving as much is an inch in all directions. This period would disappear the moment the engine revolutions were either increased or decreased. A combination of a relatively high saddle mounting and low handlebars imparted a feeling of the greatest confidence, no doubt due to the excellent control over the front wheel which the rider had at all times,. The steering is of the Stevens is exceptionally good. It could be ridden at 40mph over an atrociously bumpy road, with the hands clear of the handlebars.

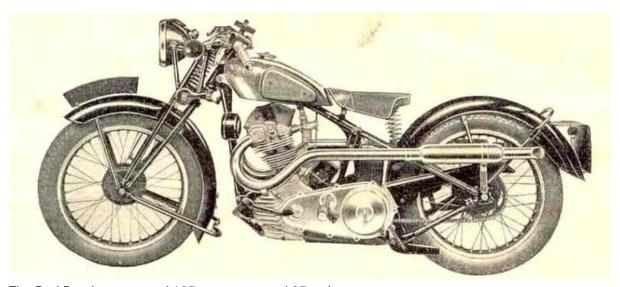


"A neat switch panel is set into the top of the wide petrol tank." (Right) "The oil tank is attached to the front down tube, in front of the crank case. Note the oil-bath chain case and the conveniently placed rear brake pedal."

A steering damper is fitted, but at no time during the test was it necessary to use it, for not even the suggestion of a wobble appeared. Cornering was exactly the same as that of a TT thoroughbred. The machine could be heeled over until the foot rest gave warning that the limit was reached. If, in the course of rounding a fast bend, the front wheel struck a bump, it would always come down without deviation. On grease the same excellent steering was in evidence. Combined with first-class road-holding and nigh on perfect breaks, riding on the greasy roads of London was almost child's play. The breaking is one of the outstanding features of the Stevens. Both back and front brakes are very powerful in action, yet possess that desirable 'sponginess' in application. The rear brake, incidentally, is connected with an efficient stop-light. The makers of the Stevens do not claim it to be an out-and-out sports model. Rather it is an extremely wellbuilt and well-finished motor cycle. It is only to be expected that the speeds obtained in the different gears were not exceptionally high. Even so, they were above the average. Under slightly favourable conditions, against which must be discounted the newness of the engine, a maximum speed of 67mph was attained in top gear (5.5 to 1). In third gear (7 to 1) 55mph was reached, while valves started floating at 46 and 25mph in second (9 to 1) and bottom (15 to 1) gears respectively. The minimum non-snatch snatch speed in top gear with the ignition fully advanced was approximately 12, and when accelerated from 20mph to 45mph in the same gear the Steve took just under 12sec. In third gear the time was taken was 8sec, while the 7sec in second gear does not give any true representation of the acceleration, as it 45mph the engine had 'peaked'. The operation of the gears was easy in the extreme, though if a silent change down was desired a little care in matching the engine revolutions was necessary. Apart from a slight whine in third gear the gearbox was reasonably quiet. Mention should be made of the clutch, which was both light and smooth an action. Although the clutch is completely enclosed in the primary oil bath chain case there were no signs of drag. At a maintained speed of 35mph the petrol consumption was 78.4mpg. It was noticed that if the Steve were driven hard—it could cruise at 55mph—this consumption figure hardly varied. Some idea of the power developed by the engine may be gained by the manner in which Pebblecombe Hill, near Dorking, with its gradient of 1 in 6, was climbed. Taken at 40mph at the bottom, the hill was surmounted in top

gear, though the speed dropped to 25mph. As the oil pump is adjustable, and the engine was new, a general setting was given, so that no true idea of the oil consultant was gained. It should be pointed out that a wet-ump lubrication system is employed. Throughout the test the engine remained remarkably free from oil leaks, while the rocker gear called for no adjustment. Finally, in keeping with the rest of this excellent little machine, the mudguarding was exceptionally good."

"SINCE LAST YEAR THE Red Panther has been considerably improved. In the 248cc model the valve gear is now completely enclosed in a massive valve chest cast integral with a detachable cylinder head. Attention has also been paid to the brakes; the rear brake pedal is mounted forward on the offside. The wide range of adjustment possible on the footrests allows them to be set to give the maximum degree of comfort. As the brake pedal is fitted with a stop it is possible to arrange the height of the pedal to suit the foot rests. However, if the pedal is set too low, there is a risk of it found in the exhaust pipe. At all times, the engine started with a minimum of effort. From cold, a certain start could be guaranteed provided the carburettor was flooded. On one occasion the coil ignition switch was inadvertently left in the 'on' position for over eight hours; in consequence of the accumulator was completely run down. However, the engine started fairly easily on being pushed hard in second gear, the dynamo cutting-in a fast running pace. Idling was excellent, and so was the mechanical silence. The exhaust note was unobtrusive, though at speeds over 40mph on top gear. it's 'tang' became slightly more conspicuous. The brakes were all that they should be, the front one being particularly smooth and light in operation. The rear brake, however, was a trifle too light, and caution was called for in its application if a locked rear wheel was to be avoided. At first, the selection of second gear was a trifle uncertain, but after the gear rod of the hand change had been adjusted, this minor point was rectified. The clutch was perfectly light and smooth in operation. The gearbox was silent in all gears and exceedingly easy to operate. To a connoisseur the selection of the ratios would appear to be a trifle on the wild side, this being particularly noticeable between second and top gears when changing up - one second, the engine was revving hard and the next it was seemingly just able to make



The Red Panther returned 105mpg at a stead 35mph.

headway. After 200 miles the maximum speeds in second (9.5 to 1) and bottom (13.5 to 1) gears were approximately 43mph and 24mph. At the end of the test the maximum speed in top gear (5.0 to 1) was 60mph. In both the indirect ratios valve float appeared to be the limiting factor.

Acceleration from 20mph to 45mph in top gear was particularly good for a 250cc machine, the time taken being 11sec. A comfortable cruising speed was 50mph, and although the Panther would rapidly accelerate to 55mph, it took an appreciable time to reach 60mph. At the other end of the speed range the machine could be throttled down to a quick walking pace in top gear without retarding the ignition. Fuel consumption at a maintained speed of 35mph amounted to 105mpg. On the other hand, the oil consumption was not outstanding, amounting to a bare 900mpg. This might be accounted for by the severe nature of the test—the Panther was driven hard throughout—and the generous setting of the adjustable oil pump. A slight criticism can be levelled at the dipstick into the oil sump. Although this is marked, there is nothing to indicate the correct 'full' or 'half-empty' levels. Incidentally, the crank case was not so oil tight, as with previous models, while a too liberal supply of oil appeared to reach the primary chain, whence it was flung over the nearside of the machine. On the road, the Panther handled admirably. The steering was excellent, even at high speeds, although no steering damper is fitted. The shock absorbers are rather inaccessibly mounted and difficult to adjust by hand. Cornering was good, and the Panther's general handling over grease and rough roads was all that could be desired. A small but disconcerting point was that when travelling over rough surfaces and the rider was bumped off the saddle, the peak of the saddle would pin, the underside of the rider's coat to the tank in such a manner as a cause distraction; at the same time the riders coat was liable to be damaged. Throughout the test the dynamo balanced the discharge of the coil at speeds above 20mph in top gear. At night the brilliance of the headlamp beam made riding a pleasure; its intensity was exceptional, yet, at the same time sufficiently diffused to provide ample illumination of the roadside—an unexpected luxury on such a low price machine."

"WHEN OUT ON MY MACHINE at week-ends I am struck by the fact that the majority of motor cyclists are not so smart as they used to be a few years ago. Motor cycling kit is cheaper and more varied than ever before, and yet many riders are still badly turned out. To my mind, for smartness and utility there is nothing to equal breeches and high boots. Waterproof clothing and rubber boots should fit well and not give the impression of being merely hastily donned overalls. The motor cyclist who wants to look at his best should wear kit of a 'semi-military' style.

## BW Newman, London, WC1."

THE ISDT WAS BACK in Germany; there were 267 entrants. The German contingent fielded 33 DKWs—having won its spurs on Continental race tracks the potent 500 two-stroke twin proved readily adaptable to cross-country competition—and 23 BMWs, with 20 apiece from Zundapp and NSU. British hopefuls arrived on 16 Ariels, 10 Beezas, eight Triumphs and eight Velos. Germany's Trophy team, including world speed record holder Ernst Henne, was mounted on supercharged 500cc BMWs with telescopic forks; DKW's factory roadracing team rode 250s as the Vase team. There were five teams competing for the International Trophy and 16 for the International Silver Vase—and once again it was Germany's year. The Courier Mail of Brisbane set the scene (strange to recount, international motor cycle sport was still considered internationally newsworthy): "Details of the International Six Days' Reliability Trial, to be held in Germany from Monday next to Saturday, September 14, should prove of interest to Queensland motor cyclists. No fewer than 1,600 miles will have to be covered by the competitors. Such a mileage gives some inkling as to the strenuous nature of the event. When it is remembered that the last day is more in the nature of a 'half day', since it includes the final speed test, it is realised that the trial is likely to prove even more arduous than '1,000 miles in six days' would make it seem. During



The fastest motor cyclist in earth and captain of the winning ISDT team: Ernst Henne was at the top of his game.

each daily run there will be special tests held on good main roads closed to other traffic. On three of the six days these special tests will be speed tests over a distance of not less than six miles and not more than 18 miles of level roads. The minimum speeds are: 175cc solos, 44mph; 250cc, 46mph; 350cc, 48½mph; 500cc, 49¾ mph; 750cc, 50½mph; 1000cc, 50½mph; and for 600cc and 1000cc side-cars and 1000cc three-wheelers, 43½mph." By way of contrast, some excerpts of the report in Motorwelt, published by the German ACU equivalent, the DDAC. Laidback, it ain't: "Once again, German riders and motorbikes triumphed in the toughest test known to motorcycling in all countries. The 17th International Six-Day Race was a German victory for the third time! Our national team of Henne, Stelzer and Kraus with co-driver Josef Müller won the international trophy on the new BMW compressor machines. The DKW team Geiss, Winkler and Kluge won the International Silver Vase with 0 points and thus also one of the three FJCM Grand Gold Medals. In addition, the prize of the Führer des Deutschen Kraftfahrsportes for the best of all club teams also went to Germany, namely to the DDAC, won by the team Steinberger, Seltsam and Schäffer on BMW. Our teams and machines have not yet been able to provide more impressive and convincing proof of German superiority...On the descent on the old Oberjoch road, it was clear to see that many bikes were already experiencing braking difficulties. Such a steep descent in scree-covered bends requires soft and evenly applied brakes, as the slightest blockage inevitably leads to a crash. What's more, we had already travelled 440km, the effect of which had probably impaired our sensitivity to brake control. In any case, this day also claimed its victims. A total of 26 participants dropped out, bringing the total number of cancellations to 59. Once again, various sidecar combinations were among them, for which the endurance test seems to be particularly severe.



Joseph Müller stayed the course despite painful injuries.

You can already see many patches on the chassis of these machines, not many of which are likely to see the end...It was with trepidation that we awaited the start of our national team on Thursday in Titisee, where the second half of the big western loop back to Oberstdorf began at dawn. But Kraus and Müller will compete [following a severe crash]. With the help of special bandages and medical tricks, it was possible to get Kraus back in the saddle and Müller in the sidecar. You have to realise what it means for these two men to set off on a 495km journey in this condition, which is by no means easier than the previous stages. The thoughts of all the German participants are centred on Kraus and Müller. Will Kraus be able to get his combination, which has left foot gears, through all the dangers with his severely injured left foot, and will Müller be able to provide him with the necessary assistance as co-driver?...The machines have also all become tired and the traces of countless crashes can be found on all machines without exception. Nobody even talks about 'slides' any more. Only complete rollovers and headstands still attract attention. Pepi Stelzer also does a great somersault on this stage. But his engine continues to run unchanged, and the indestructible Bavarian continues his 'dash'. The best of our national team so far has been Henne, who incidentally is one of the few who think that things could be a bit worse...Remarkably, one of these riders is Miss Cottle, who is coping admirably with her 350 BSA. Unlucky this morning was Miss Foley, who rides one of the new 500cc Zündapps. She only managed to get the engine going after 32 minutes, apparently having made some kind of mistake on the first attempt to start it. She no longer had enough power to continue, so she gave up...The German national team is still at the centre of everyone's attention. Stelzer has survived his crash from the previous day well. Kraus and his co-driver Müller actually seem to be hanging in there. This quiet heroism is also admired without envy by

their foreign colleagues...The sixth and final day of riding began on a cloudy note, covering another 250km over poor roads to the road triangle there, where the final speed test was to take place...paralysing horror spread among the German sports fans when it became known in Füssen that Stelzer, a member of the German national team, had fallen while swerving in front of a cat and had been lying unconscious for some time. German drivers who found him got him back on his feet and persuaded the completely dazed man to resume his journey. And 'our Pepi' did manage it, but the German team was now no longer penalty-free and this misfortune meant they were 25 points behind the Czech national team, who had only scored 22 points up to the Füssen speed test. As a result, the international trophy was lost to Germany at the last moment, as the Czechs only needed to maintain the required average of their classes in the speed test, as the greater speed of a team only decides if there is a tie. The mood among the Germans was therefore understandably very dejected at the start of the final test, and even the



The German Vase team rode the 246cc DKWs.

prospect that the German Silver Vase team with the DKW drivers Geiss, Kluge and Winkler had remained penalty-free thanks to the heroic self-conquest of Winkler and thus had the Silver Vase pretty much in the bag...But it was apparent that the Czech national team's sidecar machine could barely keep up with the required pace. And in the fourth round, the crazy Czechs took their fate. The 350cc Java, which had already produced suspicious noises at the beginning of the final examination, eventually stopped after becoming slower and slower. The engine had broken down and had no longer endured the ruthless twist on the Füssen road triangle after the six-day trial. And so the Czechs lost the trophy again to Germany, after feeling like a sure winner in the morning. One can imagine that the German national team ran their final rounds under the shocking jubilation of thousands of spectators crossing the Füssen street triangle. The lap of honour turned into a unique triumphal ride, and as they entered the parking lot, the brave drivers were almost torn apart by the enthusiastic crowd. Nevertheless, the applause received by the German silver vase team was no less. The three DKW drivers stayed close to each other during their nine rounds, as they had only to keep their average. Their machines—this is the charging pump model, as well as compressor engines—also survived this last test without a single suspender. Thus, the supercharger concept idea in the touring machine must have celebrated a complete victory, as the German motorcycle industry can be proud of this overall success. And a third great joy gave us this very well-finished day, namely the victory of the DDAC team in the competition for the prize of the Corps leader Chickenlein. This award, which was won for the first time last year by the Dublin students, also went to German hands this time. You can't really win more convincingly." Meanwhile, back in Blighty the *Cheltenham Chronicle* reported: "Evesham Rider Awarded Silver Medal—The International Six Days Trial in Bavaria finished on Saturday with Germany the winners of both the International Trophy and the Silver Vase. Germany's national team dropped 28 marks during the week—because of a cat. On Saturday J Seltzer was riding at speed when a cat ran across his path and was killed. The marks, were lost through the time taken to repair the damage to his machine. Czecho-slovakia had only lost 22 marks and were ahead of Germany, but one of the riders gave up in the speed test, losing 44 marks. England was third with the loss of

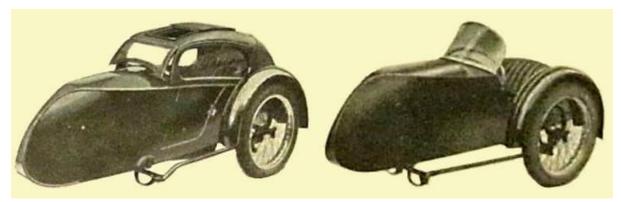


GE Rowley rode his AJS as part of the British Trophy team, but it wasn't their year.

401 marks, and Italy fourth with 402 marks lost. Tim Robbins, the Evesham rider, gained a silver medal awarded to competitors not losing more than 10 marks. A letter has been received from Jack Williams of Cheltenham, who retired following a crash. He stated he was riding along a narrow track when a German motorcycle and sidecar came round the bend on. its wrong side. The only thing to do was to jump off his machine, and this he did, with no more damage than a sprained wrist. In the collision the chassis of the sidecar was torn from the cycle. A large crowd quickly gathered and, states Mr Williams, 'If I had been hurt they would've murdered this man.' He was a garage proprietor and on his way to attend to a German competitor's machine, but he had no right to be on the course." **Results**. International Trophy: 1, Germany (25 penalty points); 2, Czechoslovakia (66); 3, Great Britain (401); 4, Italy (402); 5, France (565). International Silver Vase: 1, Germany A (0 penalty points); 2, Czechoslovakia A (61); 3, Italy B (204); 4, Holland B (300); 5, Ireland A (303); 6, Holland A (404); 7, Hungary (515); 8, France B (565); 9, England B (600); 10, Italy A (601); 11, Germany B (623); 12, Switzerland (642); 13, Czechoslovakia B (903); 14, Great Britain A (R); 15, France A (R); 16, Ireland B (DNS).

"FOURTEEN DIFFERENT TYPES of sidecar to suit every taste and purse form the Pride & Clarke range for 1935. There are eight completely new models...The majority are now constructed with a combination of light aluminium sheet panels on a base of three-ply and a strong wooden

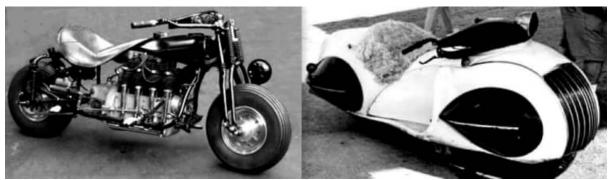
framework." Priced ranged from the Super-Lightweight Sports model at £7 7s 6d for bikes up to 250cc to the Airline saloon at £2 17s 6d.



"The Pride & Clarke Richmond saloon has a car-type sliding roof, a hinged windscreen and as roomy locker inside the streamlined tail." (Right) "Attractive Continental lines are a feature of the Richmond Sports sidecar."



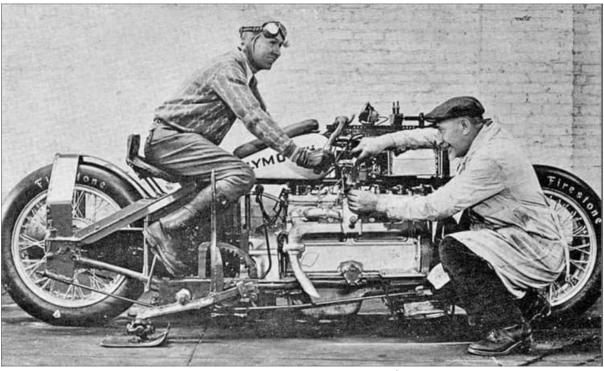
By way of contrast, here's a pair of contemporary Italian sidecar designs.



Orley Raymond Courtney was a metalworker for Oldsmobile when he decided to modify his 1930 Henderson KJ Streamline. The four-pot 1,304cc IOC lump was said to turn out 40hp at 4,000rpm with a top speed into three figures but Courtney wanted more comfort than was offered by the Henderson's rigid frame. So he added a swinging arm back, 10in wheels with balloon tyres and hydraulic drum brakes, and spent nine solid months encasing it in a hand-beaten bodyshell that is a tribute to his craftsmanship.



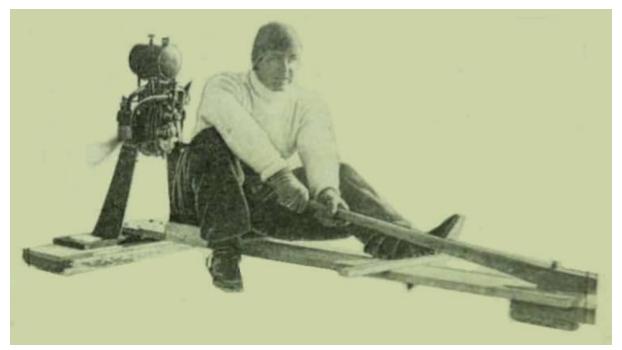
KNOBBLY TYRES AND OTHER modifications had made trial bikes so good that courses had to be made tougher and tougher to give riders sufficient challenge. Some hill sections were now regarded as dangerous. The ACU hosted conferences where manufacturers, riders and organisers had their say on the sport's evolution. The Colmore Cup was the first national trial to ban knobblies and within three years every major trial had a 'standard tyres only' rule. Inevitably the tyre manufacturers offered tyres that were as knobbly as possible within the rules.



Fred Luther, a Texan emigree living in California, was promised \$30,000 worth of contracts from sponsors if he could build a bike that could do 200mph. With a little help from his friends Luther stretched and reinforced an Excelsior frame to take a 1934 Plymouth straight-six, tuned to 117hp. Steel skids were fitted to keep it upright when stationary and help slow it down. At Bonneville Salt Flats it snapped a rod when doing nigh on 160mph and he couldn't afford another engine so that was that.



Italian engineer Ernest Fraquelli designed the Gyrauto which was claimed to do 116mph. Modern Mechanix and Inventions reported: "The unusual piece of apparatus was demonstrated recently in Brussels, Belgium."



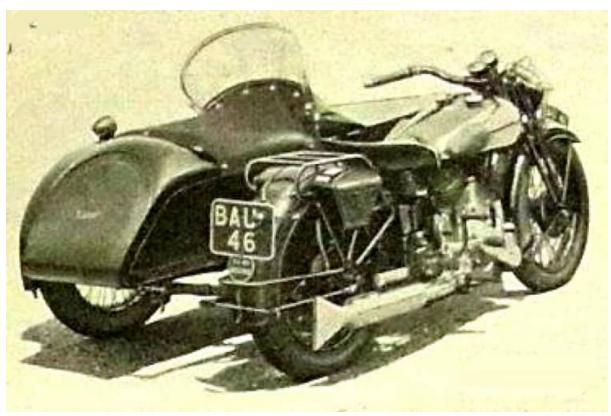
"Where winters are more severe enthusiasts turn their thoughts to ice. 'Solo models', and sleighs such as this, seen near Vienna, are frequently brought intop use. An air-cooled wngine drives the propeller, and the sleigh is said to attain quite high speeds."



The Moto Gazelle was a French-made electric bike, and look a solid bit of kit.

"NEW NEW ZEALAND RECORDS in both solo and sidecar classes were established recently. Riding JK Masder's 500cc JAP-engined machine, C Goodwin, one of the Dominion's veteran riders, averaged 109.09mph in two runs over a flying half-mile. On the same machine with a sidecar attached and with the owner as passenger, another veteran rider, B Bray, achieved an average of 89.5mph. The successful attempts were made at Muriwai Beach, about 30 miles from Auckland, North Island."

"IN THE PAST BROUGH Superior machines have been too expensive for the majority of motorcyclists, and the maker has had many requests for a machine more in keeping with the length of the average motorcycle's pocket. To meet this demand, a new model called the New SS80 has been introduced which, fully equipped, is to sell at £90. The power unit is a 1,000cc side-valve twin. All moving parts including the valve guides are totally enclosed and positively lubricated by a full dry sump system. The specification is the same as that of the 1150 model. This includes a duplex frame, four-speed gearbox with foot change and quickly detachable wheels with 3¼in and 4in section Fort Dunlop tyres on front and rear wheels respectively. Double strength, metal chains are used and the primary chain is totally enclosed. As usual on Brough Superior models, very large fuel tanks and fitted, the petrol tank capacity is 4½ gallons and oil capacity half a gallon. Full road equipment is included in the specification, namely, Lucas Magdyno lightning, Altette electric horn, rear wheel driven speedometer and a neat saddle of no less than 18 inches width. Although the price is a low, one for a Brough Superior it is stated that there is no alteration in the standard of workmanship and materials.



"A 'New SS80' Brough Superior in sidecar form."

WORLD MOTOR CYCLE SPEED RECORDS were tumbling. Ernst Henne raised the flying kilometre record yet again, hurtling along the Frankfurt Autobahn on the blown 750cc BMW at 159.10mp—a London BMW distributor was appointed. The DOHC supercharged transverse four Rondine (Swallow) took a clutch of 500cc records at up to 152mph (ridden by Piero Taruffi it also won the 200-mile Tripoli Grand Prix). The Rondine's manufacturers were busy building aircraft and sold the design and six bikes to Guiseppe Gilera; Taruffi joined Gilera as works rider. Harry Nash's New Imperial, fitted with a light-ally flyscreen and engine enclosure, set a flying-kilometre record, at 70.1mph.



Taruffi and the transverse-four Rondine moved to Gilera. We'll meet them again soon.



"MOTOR CYCLES FOR ALL NEEDS—machines that are quieter, cleaner, neater.' This, as Torrens stated in the BBC's National programme last Friday, is the slogan of motor cycle manufacturers, and the present Olympia Show marks a big step forward. Let everyone admit it: Over the past few years the industry has to some extent rested upon its oars. Some would use another less complimentary metaphor and assert that it has been in a rut. This is largely true and the cause was economic. The export trade was booming when along came the world depression and cut into it like a knife; down, too, went the purchase of motor cycles at home. Retrenchment was the order of the day, and the natural corollary was stagnation in design. Now a new spirit is abroad. General trade is on the up-grade. The industry is alive—determined to get out of the rut,

to make better motor cycles and to cater for all tastes. We know this to be so, and the present show confirms it. There are two new four-cylinder motor cycles, all-enclosed motor cycles, machines made for two, the first of what is likely to be a series of motorised bicycles, half a dozen or more new engines...And there are many valuable but less spectacular improvements, such as the standardisation of larger fuel tanks, the fitting of prop-stands and the provision of better riding positions. Visiting the present Show is a tonic. The crowds are enthusiastic, and among them are thousands who have come not just as sightseers but to settle upon their motor cycles for 1936. They are lucky, so, too, are all who are able to visit Olympia, for it is the world's most important motor cycle exhibition and augurs well for the future of motor cycling."

"IT IS REASONABLE TO ASSUME that manufacturers exhibiting at Olympia place the most emphasis upon the models they expect to be the best sellers. Thus, if a particular 500cc model is looked upon as being the most important in the range, several examples are usually displayed. Hence an analysis of the machines at Olympia is of more than passing interest. All told, there are 320 machines on manufacturers' stands. Of these, 277 are solo motor cycles, 31 sidecar outfits and 12 three-wheelers. The most 'popular' type is the 500cc machine. One in three (33.5%) of the machines on the stands is a 500; next comes the 250s, with 24.7%; then the 350s, 19.3%; I,000cc machines have a total of 8.4%; for 150cc it is 6.3%, and for machines of 600cc and over 1,000cc, 5.3 and 2.5% respectively. Over 13% of the machines exhibited have more than one cylinder. There are 11 four-cylinders and 31 twins. Push-rod operated overheadvalve engines, of course, hold sway numerically. Slightly over 63% of the exhibits are of this type. Next in order comes the side-valve type (18.5%); then the two-stroke with 11.3%, and overheadcamshaft designs, 6.5%. How widespread has been the adoption of the four-speed gear box will be gathered from the fact that this year no fewer than three out of every four machines are so fitted. That sensible feature, foot operation of the gears, is now standardised on a large proportion of the exhibits, both touring and sports machines. In the majority of cases the gear box is separate from the power unit; nevertheless, no fewer than thirty machines have unit construction."

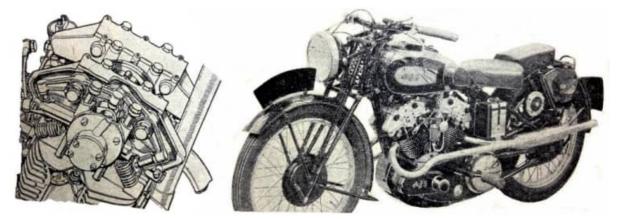


"IT TAKES TIME TO SEE the new AJS at Olympia.," Ixion warned, "Not merely because it deserves study but because unless you are very tall hours can elapse before your view includes more than shaven necks, turned-up collars, and such like. After exhausting your patience in a prolonged Rugger scrum which pretends to be polite, you eventually arrive in or near the front row, and commence to lean backwards, and employ your 'situpon' as a lever to thrust the crowd away so that you can enjoy a thrilling model. Doubt if any machine staged at Olympia has ever gripped quite so any visitors. It is an attempt to make the best of both worlds, for it should serve

as quite a docile tourer and even potterer, attractive to those who like the best; and plus a blower, and a gay grasp on the grips, it should hunt the fastest on the roads. Everybody is suggesting that if it could be mass-produced by the thousand it might render many machines obsolete within twelve months. We greet it well, and hope that racing fame awaits it. But here's a searching question for you—if it is entered in the 1936 TT and is not too young to stand up, who is going to ride it?"



"The design of the new V4 AJS engine is such that it fits snugly into the frame of the ohc 500 'single'...in fact the chain line is the samea lthough the engine is only slightly offset, while the weight distribution is practically identical. Of course the engine plates are different—the front pair house a dynamo. However the dynamo will be replaced by those who desire it with a supercharger. The new model is intended primarily as a high-efficiency road machine with an alternative racing specification. The price, including electric lighting but unsupercharged, is £89 5s. The exhaust system shown will be modified and will employ only one silencer on each side, the forward pipe being upswept and running straight into the rear pipe."

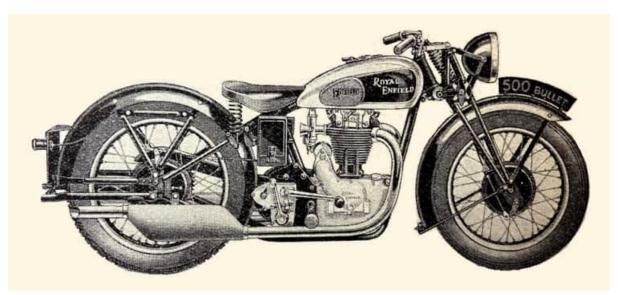


"In effect the new 500cc ohc four-cylinder AJS is two twins set side by side. A common crank case is employed with a centrally disposed chain driving the four overhead camshafts."



The V4 Ajay competed in the 1936 TT; it was fitted with water-cooling and a supercharger. It didn't go into series production but in 2006 Vancouver based engineering genius Dan Smith completed this exquisite replica (and sensibly replicated the four-pipe exhaust which looks just right). One can only daydream of a 1,000cc V4 roadster...one more addition to the list of might-have-beens.

"ROUND OLYMPIA WITH IXION: The great hall at Olympia has never looked better than on opening day. Once upon a time in boom days there were a round hundred more exhibitors than survive to-day, and the floor looked cluttered up. Nowadays each exhibitor is allotted a nice slab of floor, and can space out his machines, whilst the factory artist has a freer hand in designing top-hamper for stand decoration. Moreover, I found on opening day a really gratifying crowd of cosmopolitan engineers, financiers, salesmen and road enthusiasts. Like most Britons I made a bee-line for the new AJS four-cylinder, preening itself rather consciously on an electric turntable in a little railed-oft paddock studded with flood lamps. It is definitely to be raced. No super jockey has yet been engaged, but the Men Behind consider that its extreme ('blown') speed will tempt every free star out of his present orbit; and that even if they don't nab a super star, it will be so fast on the straights that an ordinary sort of a lad could throttle it round corners and yet beat a super star on any other bus. I passed to the Norton stand, where the jewellery counter simply screams for a 'stick-up'; their trophies are now numbered by the thousand, and it is whispered that every stand attendant has a holstered 'rod' under each armpit. Nobody there would tell me anything...the atmosphere was 'deeds speak louder than words', and 'what we have we'll



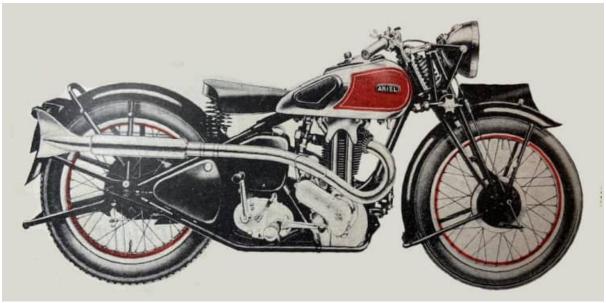
"There are 12 Royal Enfield models, and of these probably the Bullet models will first catch the eye of the sporting rider. The 500cc edition [pictured] has a tuned high-compression engine with a four-valve head. The 250cc model is specially tuned too, but has a two-valve head. Both are smart-looking mounts with a 'peppy' performance."

hold!' I gathered that if the Guzzi was ill-advised enough to come to Douglas next year it would learn where it steps off. Then to the Levis—said to be the nearest approach to a 'tool-room' job surviving in the industry, 'specials' always excepted. There is only one girl in the works (a dipper in the enamelling shop), and only one boy (he runs errands). I gather that the rest of the Levis crew are the sort who were teethed on a spanner, and always had a feeler gauge hidden in their binders. Nice jobs are the new 'Light' models; anything up to 30lb lighter than their prototypes, and full of performance. I liked the external rocker adjustment, and a handlebar which maintains its grip angle irrespective of whether it is set low for the road or high for the 'Colmore'. Along to Royal Enfield, still all meek and blushing at being the only 100% trade team in the 'International'. Their technical men are worth hearing on the subject of quickly-detachable wheels, which they regard as absurd. If the puncture is a nail, you don't want to swop the wheel, but only to expose a nice arc of tyre—so they loosen (not detach) four nuts, and the top 180° of the tyre is laid naked. If the hole is too small to find or too large to mend, you want a new tube. Pull spindle out 11/2in; spring forks 1/8in; out drops a distance piece; thread old tube out via gap; thread new tube in via gap; and there you are. Rudges are another firm who have done a lot of quiet 'development'. The comp Ulster is based on MacGregor's Scottish winner; it has a three-row bearing big-end; a lighter

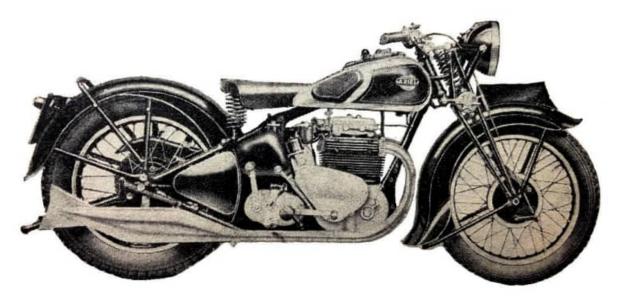


"Although famed for its speed, the 'Ulster' Rudge has many touring-type refinements...The Ulster is, of course, the fast machine of the range. A slight modification has been made to the piston to eliminate distortion, and the big-end bearing now has three rows of rollers...A useful accessory fitted to the Ulster and Special models is the 'Revulator'. This shows engine revolutions at any given speed and in any gear."

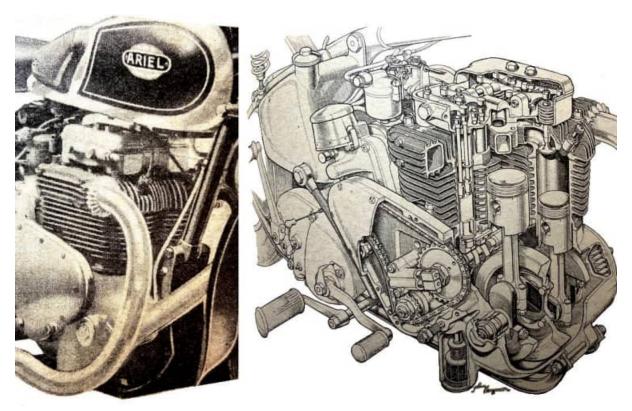
front-wheel assembly to facilitate handling over bad stuff; and a belt drive for the dynamo, so that the lighting set can readily be dropped for trials work. Keen attention has been paid to silence here—note the absorber tube in the tail pipe and the neat little strip gauge so that you can reset it accurately after a noisy day in the wilds. The OK Supreme people were busy booking orders and trying not to look turkey-red under customers' compliments. They were evidently very proud of their 90mph high-camshaft 500cc at £65. I gather the last few miles are based on special tuning, as the bus is 50s cheaper minus a speed guarantee. George Brough for once could hardly be induced to talk about his buses; he was too excited at the idea of competing in yet another Exeter run; he was one of the gallant 46 who competed 25 years ago in the first of the series, but he displayed with pride Fernihough's racer, which has done a standing half-mile at 88mph, a truly fantastic acceleration. He offered to guarantee his new big-end for ten years, and as a proof the Rolls-Royce specification of the BS showed me that even the rear-stand pivot was furnished with its own to little greaser. The Vincent-HRD machine continues the kind of progress one expects from a factory where directors are riders. They confess that the TT taught them a lot—especially about lubrication. They have probably eliminated primary chain



"The Ariel Red Hunter series [available as a 250, 350 or, as in this case, 500cc] have gained an enviable reputation. They have many practical features, notably shock-absorbing handlebar mountings, guards over the bottom run of the rear chain, hinged rear mudguards, pivot-mounted gear boxes with a really sensible means of primary chain adjustment and massive primary chain cases. A sound improvement is the method of mounting the clutch outside the oil-bath part of the chain case, although it is fully enclosed by a separate domed cover"



"Probably no motor cycle will create greater interest at Olympia than this, the new 1,000cc Ariel square four-cylinder, which is claimed to be capable of 10-100mph in top gear...The machine is an imposing model, but it is not unduly big or heavy. Indeed, the frame is much the same as that of the 600cc model, but it has been modified to allow the fitting of a much larger tyre on the rear wheel than on the front."



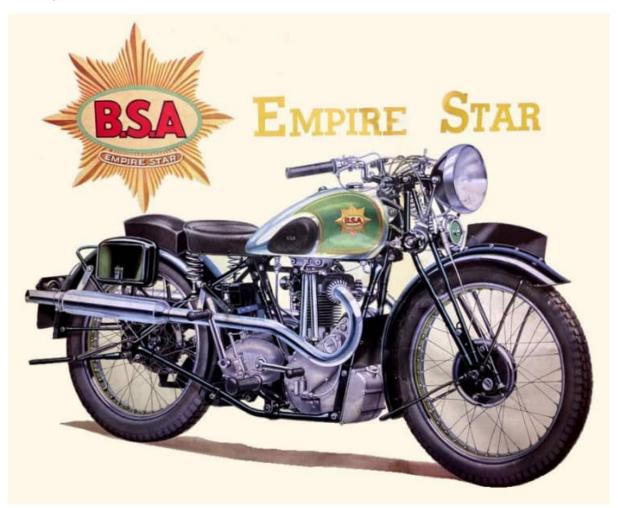
"Exceptional neatness is a feature of the engine unit of the new 1,000cc Square Four. The overhead valves are operated by push rods."

troubles by using a duplex chain in an oilbath, with a cunning little external gauge for testing tension. I like the manner in which the important instruments are all mounted forward of the handlebar. The Morgans are better looking than ever, and it is small wonder that they sell well in competition with small cars when one considers that the £114 model with a four-cylinder, water-cooled engine cruises at 60mph and is most economical to run. Ariels are very absorbed with jigs for the new 1,000cc four, which will be in production by March. Designer Turner was very interesting on the multi-vs-single debate. He is not trying to wring more knots from the Red Hunter singles; they do a genuine 90mph already, and though you can get more, it would demand a racing plug, and be useless in traffic, whereas the 1,000cc four, being so lightly stressed, can do a 100mph on any normal plugs you like to fit. The cynosure of the BSA stand was a star-shaped dais with one or other of the new Empire Star models on each point of the star, and a centrally-illuminated pillar displaying the verdicts of various experts and racing stars on its manifold merits—a most effective piece of showmanship. A new Velocette is always an event. Neat as the original camshaft was, the new model has a far simpler and decidedly more efficient cylinder head, and the lubrication is said to be a 'wow'; we shall watch this machine in the



The 149cc X35-0, described by BSA as: "An inexpensive model with a really fine performance. The extremely low running and maintenance costs and low taxation will appeal to everyday riders who require an economical utility machine."

A twistgrip and Dunlop pillion seat cost 7s 6d and 8s 6d respectively.



"The new Empire Star models," BSA claimed, "—the machines about which such famous men as Stanley Woods, Jimmy Simpson, Raymond Mays and Charley Dodson are so enthusiastic—

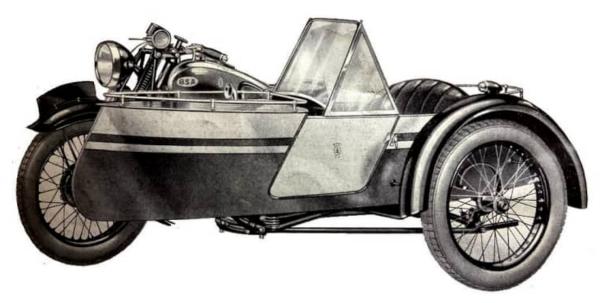
set an entirely new standard in sporting motor cycles." This is the 496cc Model Q8, priced at £65 10s; the 348cc Model R5 cost £62.



The BSA 500cc J35-12 came with "BSA flexibly mounted handlebar with special controls, including twist grips for throttle and ignition. Saddle tank (3 gallons), knee-grips, spring-up rear stand and quick action prop stand. Quickly detachable rear whee. Approved pillion seat fitted or rear carrier if required."



The 748cc Y13, BSA announced, "is similar in general design to the 4.98hp ohv twin but it has numerous detail improvements which help to make full use of the extra power of the 748cc engine, resulting in an amazing all-round performance. It is suitable for solo or sidecar work.



The BSA Launch sidecar was designed to be pulled by an ohv 350. The chassis featured "scientific triangular construction with immensely strong rear axle tube giving great strength without unnecessary weight...An improved model...offering greater comfort and improved general appearance...cellulose finished in maroon and ivory with maroon upholstery." It cost £22.10s.



From the BSA catalogue, which was available at the show: "BSA Special Sports Model 21-44. Suitable for BSA Motor Cycles from 3.48cc ohv Blue Star....this new model meets the requirements of sporting appearance and low cost. Upholstery lifts to give access to capacious locker at the rear." Price was £17.

1936 TT with the highest expectations. A 500cc Manxman stood proudly on the Excelsior stand; it has already done a timed 96mph in roadster form, and is not passed off test at less than 30bhp. Development of these models comprises a host of vital lubrication details. The 'Manxmen' have special gear boxes with ball bearings at both ends of the layshafts, and the gear change pedal pivoted very far back. This sounds trivial, but actually it furnishes a gear change

with less pedal motion and permits the footrests to be set well back, where a racing man wants them. The Coventry Eagle Pullman two-seater drew such crowd that lady pillionists obviously hate muddied stockings more than I had imagined. The machine bristles with pleasant details—rear bumper, rubber fenders on legshields, accessible battery, excellent chain adjusters, and super silencing. At long last the Francis-Barnett people are charmed with the flat-top piston model of the 250cc Villiers engine. It is definitely 3mph faster than the old deflector type, and will do as near 60mph as no matter; it is innocent of piston slap; it can be flogged indefinitely on arterials; and it registers round about l00mpg at 30mph. The carburation is now completely OK, and altogether the delay in production has been amply justified. The James stand was eminent for some low-priced baby two-strokes—and some three-wheel delivery vans. Crowds round



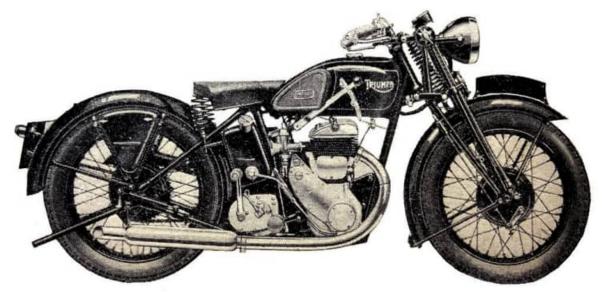
The 1,206cc side-valve V-twin Indian: "One of the two largest capacity machines shown at Olympia." [The other was the 1,265cc Indian four.] "The engine is fitted with aluminium cylinder heads. The power unit is carried in a sturdy duplex frame similar to that of the Four. This model costs £110."



"A sporting twin in the Transatlantic tradition—the 744cc sv Sports Scout Indian. The 'British

type' of front forks fitted will be noticed. Also on the Indiann stand will be the new 499cc Scout Pony, a light twin selling for £85.""

the Triumph range were mainly concentrating on the 650cc vertical-twin with the helical-gear primary drive, and the new Model 3/2 sportsman's 350cc model, which has been redesigned for low weight and high performance. Their 500cc ohv model, too, looks a gem. In their de luxe equipment that very rare item, an illuminated instrument board, is included; I could never see why instruments are useful only by day, as most designers appear to think. Freights, tariffs and insurances prevent the Indians selling as freely in this country as their intrinsic merits would otherwise ensure. Their 'four', in spite of being a line-ahead, somehow looks more compact than our V4s, but the detail design would stand cleaning up. Many of the fittings are worth close study. I was told on the New Imp. stand that they had now sold 25,000 'unit' models, and were still awaiting their first order for a helical gear replacement. This factory claims the allegiance of an amazing variety of riders; they sell small stuff to the impecunious, and simultaneously they find customers ready to pay £92 10s for a Grand Prix 350 with aluminium-linered cylinder and bronze head. In the days when the bloods of the movement could afford to pay for the best, Sunbeams thought nothing of asking over £100 for a 500 of the first water, and the depression naturally hit their special de luxe market rather hard. I admire the skill with which they brought down their prices to suit altered conditions without jettisoning the ideals for which they were always famous. For 1936



"The big single side-valve Triumph is a machine specially suitable for sidecar work. The frame is particularly sturdy and the 549cc engine, with its enclosed tappets and valves and detachable alloy head (with 14mm plug) is of the most up-to-date side-valve type. Note the position of the sparking plug."

their 500cc ohv costs no more than £66 without lighting, and what an aristocrat it is!We must bid a tearful farewell to the Matchless four-cylinder. A few of the Silver Arrows are still being made to special order, but the Silver Hawk is dead. This factory possesses one of the finest plants in the motor cycle industry, and makes engines for a number of good firms. The star of its 1936 range is the Clubman model—a good clean design free from all eccentricities. The Matchless people stage one of the best prop stands on the market—a long, heel-operated fellow with a radial action. The engines have one invisible detail of interest—their valves are chromium-plated, except for the seats; this has eliminated sticky valves during the running-in

period; when the plating is worn off the high spots, the guides have bedded down properly. Their primary chains, which are not duplex, betray no serious wear after 15,000 miles, thanks to a really oil tight chain case coupled with an improved shock absorber. Space forbids me to notice other exhibits in detail, but those who hope that one day the Government will wake up to emulate foreign dictators, and free small engines from tax and insurance, should study the 125cc Villiers unit (engine and gear box). The engine is a snorter for its size, and with the aid of a deflector-less piston achieves good performance and high economy. It being assembled into (a) motor cycles, and (b) motorised bicycles by two or three firms already, despite tax and insurance burdens. For example, the Wolf people sell either type of machine at £18 10s. These tiny machines ought to be counted by thousands on our roads—as their opposite numbers are in some Continental countries."



"There are four Wolf models on view, all in the lightweight class, the most novel being, perhaps, the motorised cycle. This interesting little machine is equipped with the new Villiers unit-construction power unit and gear box. The brakes are 4in in diameter and are interconnected, being applied by a lever on the right handlebar."



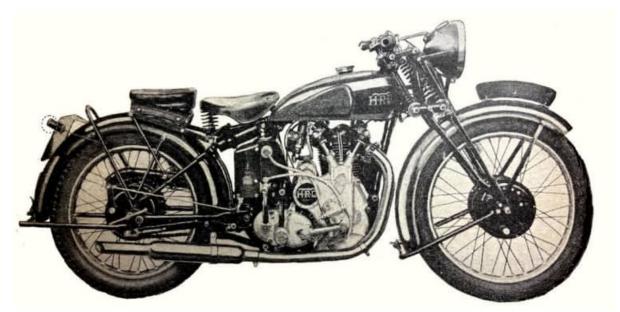
"Steel pressings form the major portion of the frame employed in the neat 148cc Plover Francis-Barnett-Villiers. The F/41 model has flywheel magneto ignition and separate dynamo lighting.



"A Show novelty—the 'Pulman' model Coventry Eagle." This example has a 250cc Blackburne engine, it was also available with a 250cc Villiers. "Its frame would be more correctly described as a chassis, with semi-elliptic springing on the rear wheel. The whole of the rear portion is covered in by a deeply valenced mudguard attached to a rectangular frame that is clamped to the top of the chassis by six large hand nuts...it will be appreciated that a really serious attempt has been made to produce a machine that is comfortable, well protected, clean (and easy to clean!), and that will carry two people when required without recourse to attachments applied as afterthoughts." The Pulman also featured a hand-operated centre stand.



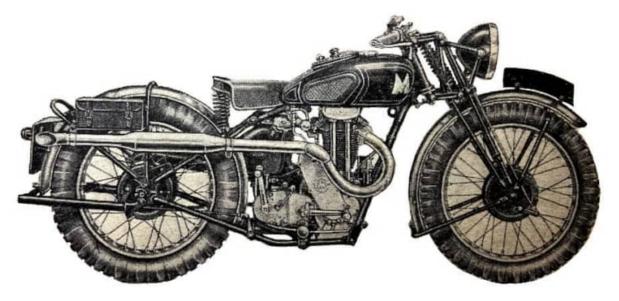
Velocette was back in the 500cc sector with the ohv MSS, but the limelight was taken by "two outstanding new ohc models—the KTS and the KSS. They are similar except for such items as tyre sizes and mudguard equipments."



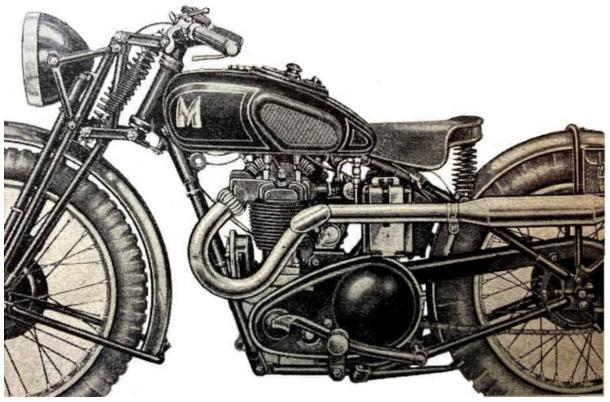
"A replica of the Vincent-HRDs that competed so successfully in the TT. The Vincent-HRD concern is to be congratulated on the fact that it has never been deterred in its determination to popularise the spring frame...The Comet model has a highly tuned engine and is capable of speeds in the neighbourhood of 90mph."



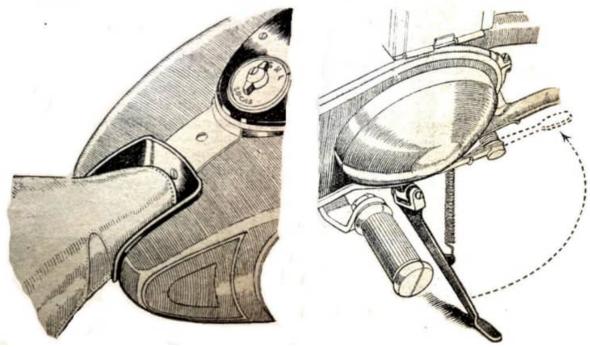
"A late addition to the OK Supreme range—a 500cc high-camshaft model. The push-rods are mounted at the same angle as the valves, swo that straight rockers may be used...The camshaft is driven by an automatically tensioned chain...Housed in a cradle frame with large tubes, the new model has a four-speed transmission; its price is  $£62\ 10$ s, and it is available with a specially tuned engine at £65."



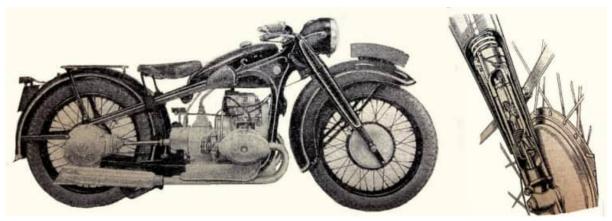
"The Matchless Clubman machines have vertical engines with overheadvalves, and they are designed for sporting and competition work. The Clubman Special (350cc) and the Super Clubman (500cc) should be seen by tghose who require a machine suitable for trials.." This is the Clubman Special.



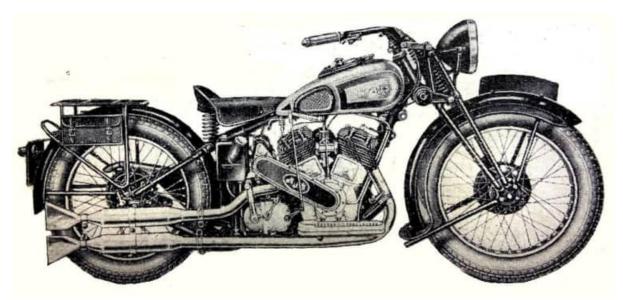
"The Super Clubman has a specially tuned engine with hairpin valve springs. It has high-level pipes, and in every way looks a really useful model."



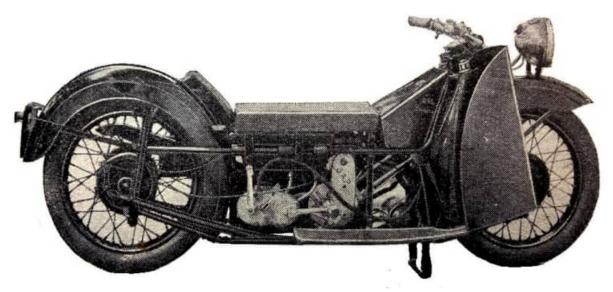
"A small gutter is arranged at the rear of the new tank employed on the Clubman models in order to prevent 'tank-top cascades'." (Right) "A simple but very effective prop-stand is provided on the Clubman Special models." You may recall that in his show review Ixion laiuded the Matchless stand as "a long, heel-operated fellow with a radial action"—this is the ancestor of the ubiquitous modern prop-stand.



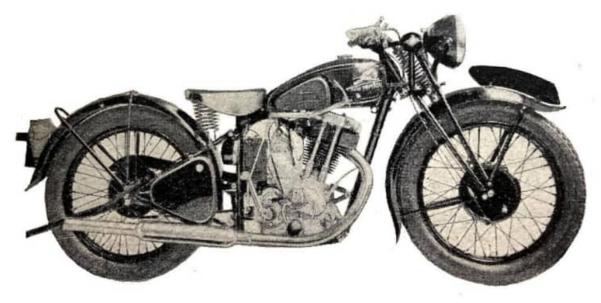
"Shaft drive, unit construction and a pressed-steel frame are notabl; e features of the 750cc ohv BMW." (Right) "Oil-damped springing is employed in the neat forks fitted to the larger BMWs...All motor cyclists will welcome the appearance of the BMW at Olympia once again, particularly as the famous rider, Ernst Henne, flew over from Germany to be present with his supercharged world's record-breaker. That slim, streamlined, mechanical wonder is displayed prominently on the stand. Actually the standard Model R17, though without the Zoller supercharger—and in a very much more roadster form—is not unlike the record-breaking BMW."



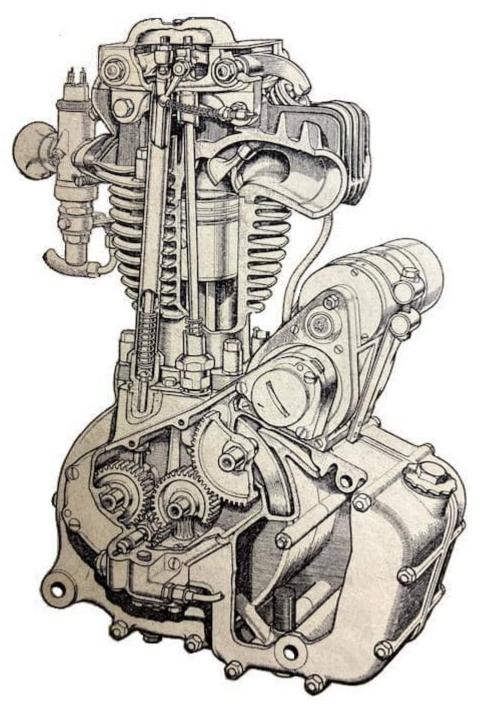
"Footboards, a left-hand gear change and American-type handlebars are fitted to the 990cc side-valvce AJS designed for overseas work."



"Some of the most original ideas in motor cycle design are to be seen on the OEC stand. The latest Atlanta two-seater, is a definite attempt to provide a 'tandem' motor cycle. It accommodates two people within the wheelbase, and the whole layout is compact and neatly arranged. The model shopwn has an ohv 246cc JAP engine and a four-speed gear box with foot copbntrol. Legshields are fitted and excellent protection is affoprded both driver and passenger. The machine represents an interesting development of the motor cycle, and is worthy of serious consideration."

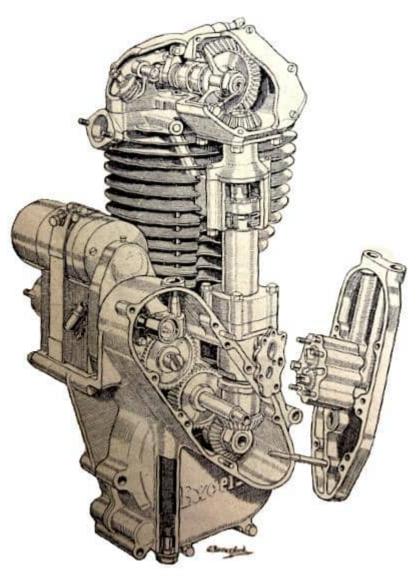


"Few firms have done more to popularise unit construction than NewImperial Motors. At the lower end of the scale is the Unit Minor de luxe, the pioneer of its type. It is of 146cc capacity and, of course, employs helical gears for the primary derive. An entirely new model is the 247cc [pictured] and it is most attractive...A 346cc edition of this model is produced, the two machines being worthy additions to the range."



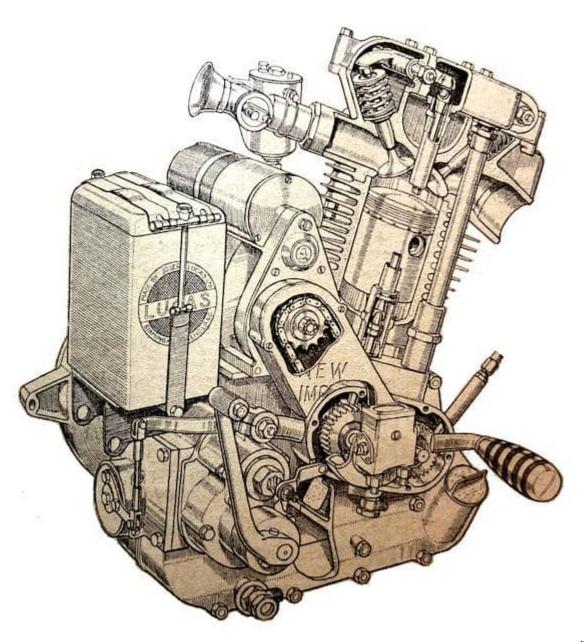
"Straightforward

and efficient—the power units of the new 496cc BSA Empire Star. A specially nickel-chrome iron, for which exceptional wearing qualities are claimed, is used for the cylinder."



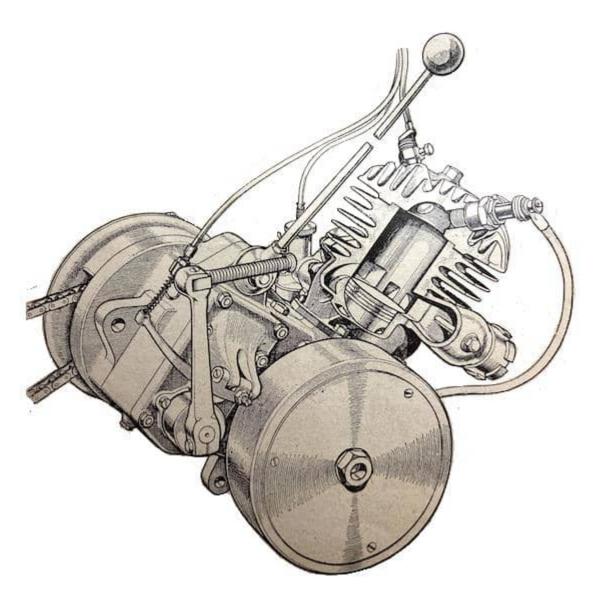
"The 500cc ohc Excelsion

Manxman engine. Note the arrangement of the oil pumps and the large filter in the crank case. The overhead camshaft runs on ball and roller bearings."

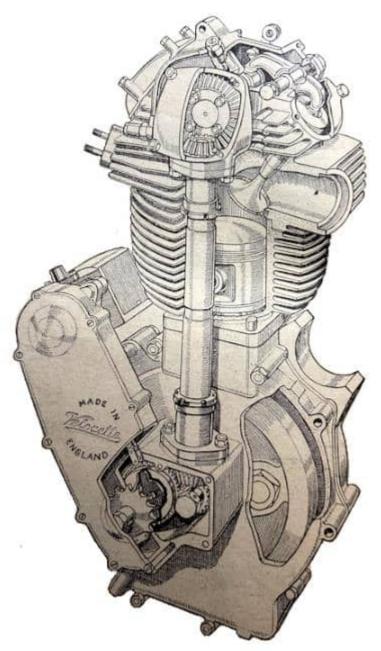


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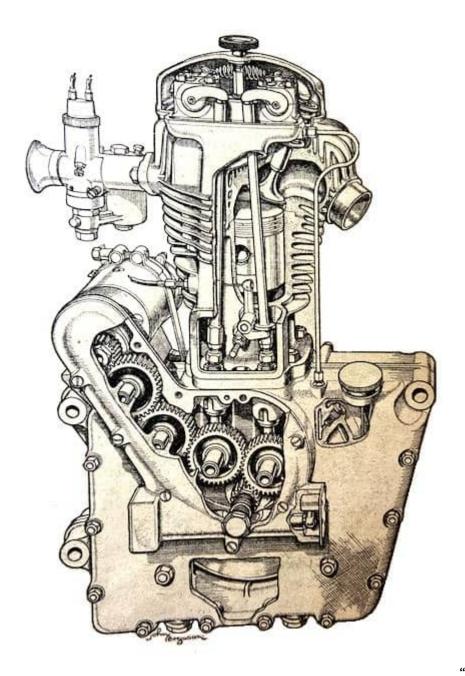
250cc Unidyno New Imperial engine has fully enclosed valve gear; the sump and gear box are separated from the crankcase by partitions; the magneto is chain driven; a long pistol is used; and the foot change mechanism is neatly enclosed at the back of the gearbox."



"Designed for hard service, the 125cc Villiers engine-gear unit is remarkably sturdy. A three-speed gear box is cast integrally with the crank case and driven by a %in pitch chain, from which the initial stretch has been removed. The engine has a flat-top piston and a detachable light-alloy head."



There are many interesting features in the new 348cc ohc Velocette engine. The cylinder head, which is an aluminium casting in one piece with the cam and rocker box, has pressed-in valve seats."



"An interesting feature

of the lubrication system of the 350cc ohv Royal Enfield engine is that oil picked up by the intermediate timing pinions is returned to the crankcase by way of a small hole at the back of the timing case."

"AFTER OPENING THE SHOW Mr Hore-Belisha, the Minister of Transport, joined the BMCA Fellowship as Member No 1. The Fellowship scheme is something new. The Association has found that there are many motor cyclists who want to support any organisation that will really fight the motor cyclist's battle, but do not want to pay a guinea for the full benefits of membership—legal defence, technical advice, touring information, and the other facilities. Hence the Fellowship scheme at five shillings, which includes a lapel badge. Another interesting bit of news is that, following the BMCA's approach to Parliamentary candidates at the recent Election, Lord Sandhurst and Captain Strickland, MP, have formed a strong committee of MPs to watch over motor cyclists' interests in the House of Commons—which, as we suggested in a leader a fortnight ago, was the next and obvious step."

"ONCE AGAIN LEN HEATH (497cc Ariel) collected the principal award in a scramble type of trial—to wit, the Alfred Scott. Memorial Trophy, which was 'raced' for last Saturday over some of the roughest going in Yorkshire. Heath came very near to making zero time, also, but was pursued throughout by Allan Jefferies (493cc Triumph), and as the local rider steadily closed up the starting interval his time for the 49 miles (or so) became the standard. It was 2hr 28min 18sec. On time Heath lost only two marks, but by very tidy riding over the many difficult obstacles his total loss was only 39 marks. Jefferies, losing no marks on time, dropped 54 on observation; his rapid progress was rather dearly bought, for Vic Brittain (490cc Norton) got round with a loss of 36 observation marks and only. dropped seven on time, so he showed a better result and was the runner-up. George Rowley (498cc Matchless), with the same loss of observation marks as Brittain, took the pot for the best performance 'on observation only'. He put in some exceedingly pretty riding on a model that seems to lend itself to sure control at quite low speeds on 'impossible' places. George certainly disproved any belief that he succeeds only by turning up the wick and hoping for the best (tactics described in the Scott Trial country as 'muck or nettles!). The route of the trial was an even more concentrated version of familiar obstacles than the previous year's course. It was compressed into a circuit of about 15 miles, almost entirely over practically unused tracks across moorland farms, into ravines (and out of them again) and across bits of open 'shooting'. But the start and finish of the circuit was at the top of Cat Crags, and getting to the start was also in the 'race', so Cat Crags had to be scrambled up four times in all. During the week preceding the event rain had soaked down steadily and there was a good deal of misgiving about certain parts of the course and their possibility. However, Saturday morning was clear,



"Even the winner of the premier award—Len Heath (Ariel)—paddled out of the splash at Dearncombe Head."

brilliant and frosty, and one or two people found thin films of ice out the main roads a little unsettling in the early morning when travelling to the start at Hopper Lane, near Blubberhouses. Indeed, one of these ice patches accounted for a non-starter, for GR Sothern (596cc Douglas) came to grief on a lonely moorland road. The first passer-by happened to he a doctor. The doctor had his repair outfit with him, and when Sothern awoke it was to find that his head had been properly stitched and bandaged; thereafter he went to spectate at Kex Beck. Among the 73 entries the only other non-starters were four riders from Edinburgh, who failed to appear, so that 68 competitors set out to beat the forces of Nature and the obstacles of man. A mile or so of main road warmed up the motors and then it was 'good-bye' to smooth surfaces—unless they happened to be wet grass. A sharp turn off the road through Kex Ghyll and front wheels were at once in the boggy mire leading to the steep track through the bracken on to the heights of Cat Crags. The mud and water are not usually too deep to negotiate, but they form a surface too unstable to permit of the slightest mistake, while the hill has enough rock outcrop to be capable of unseating anyone who treats it lightly. Two thirds of the entry lost marks on this first ascent of Cat Crags before they started the three circuits proper. Another short stretch of genuine road led to Kex Beck, after which the whole circuit became truly rural. Kex Beck is only a tiny stream, but it lies in a hollow with steep and slimy banks; and it was now taken in the reverse direction to usual. And what was formerly an uncomfortable descent over Round Hill Moor was an appalling ascent towards an ever-receding horizon. Only five people got away with it—W Longbottom (596cc Scott), Ken Norris (248cc Red Panther), GE Rowley (498cc Matchless), L Heath (Ariel) and D Lamb (Ariel). GP Whyman (596cc Douglas) got nearly up, turned round, careered down

into a moorland 'beck', and bent his front forks into curious shapes. Strong men stood upon and pulled at the girders in order that the model could be wheeled. Loftshaw Ghyll splash was not too bad, but AH Walker (249cc Triumph) started to experience clutch slip hereabouts that persisted throughout the day—not to mention the incidental discomforts of a broken fork spring and saddle spring anchorages that came adrift. Many spectators who had reached the somewhat hidden-away Fairy Dell—'at the bottom of the garden'—waited patiently for a trial that never came. For the Dell was cut out owing to the depth water in the splash. Dearncombe Head was only a few fields away, but quite invisible and much less accessible, and only a few onlookers found their way to it. But it was undoubtedly the real test of riding in the 'race'. Not a single competitor managed to descend to the tiny stream without footing. The splash was nothing. But the ascent therefrom is terrific and there is one hairpin that does not call for ample steering lock—it wants a frame hinged in the middle! With everybody failing or footing it was difficult to single out those who deserved special mention. But certainly Oliver Langton (249cc Triumph) was one, if only for his great restart after being held up by a bunch of failures. CH Wood (172cc SOS) also kept going nicely, while 0M Dixon (497cc Ariel) failed to take the hairpin, sailed on into the moor, turned round, and got in a rush that nearly brought him to the top. Jack White (248cc Ariel) just managed to keep the wheels turning; Bob MacGregor (499cc Rudge) and Graham Goodman (497cc Ariel) both used their feet, and then, at the summit, hared off in the wrong direction; Vic Brittain (490cc Norton) grounded his crank case and had to be pulled on to better ground; and RG Wilkinson (348cc Calthorpe) all but rolled back into the ravine, but 'held it' until help reached him. H Blake (348cc BSA) appeared to be the only competitor to make a clean ascent, but it was difficult to judge amid such a welter of plunging models and pounding feet. Tyrell Smith (499cc Rudge) got his gear control all mixed up and had to spend a great deal of time sorting it out. Meanwhile, Ken Wilson (348cc Panther)—last year's winner—L Heath (497cc Ariel) and A Jefferies (493cc Triumph) were riding steadily over Denton Moor, and their progress was being watched, for



"Teeth gritted, Allan Jefferies (Triumph) is seen hurtling along near Dearncombe Head. Following

him, dressed in white and mid-coloured overalls, is Jack Williams (Norton). (Right) "Archorganiser of many Scott Trials, CH Wood (172cc SOS), is here revealed by the camera as taking his own medicine like a man! He is overtaking EW Commander (Triumph)."

it seemed that they were the riders to watch. Wilson held his lead from Heath, and Jefferies was closing up on the second lap. Then the Panther suffered a sad bout of plug trouble and went out. CF Brett (277cc Triumph) retired at Kex Beck, and on Round Hill Moor H Blake (348cc BSA), positively blinded by the sun just above a crest, dropped into a deep gully and was winded for a few minutes. JS Hyslop (249cc Triumph), at the same spot, shouted 'Hey up!', took his own line, which happened to be where the crowd stood, and got away with it. Of course, the crowd 'Hey upped!'. Ken Norris (248cc Red Panther), it was said, had disappeared with gear box trouble, and JH Kitto (349cc Rudge) was 'enjoying very poor health' in the magneto department, but carrying on. WA West (497cc Ariel) had swept off his near-side footrest, and was getting expert at 'standing on the chain case' on observed sections. For two hours after Allan Jefferies finished Timekeeper Lumby sat upon a bentwood chair on the windy summit of Cat Crags awaiting the stragglers. Then he. packed up his watches—and shortly afterwards CH Wood (172cc SOS) arrived, having done his three laps. Officially he was not among the 41 finishers, but later the stewards decided to give. him the 'under-200cc' pot. Provisional Results: Alfred Scott Memorial Trophy (best performance of the day), L Heath (497cc Ariel), marks lost, 39. Raymond Bailey Trophy (second best performance), VN Brittain (490cc Norton), 43. Norman Dixon Prize (third best performance), J Williams (348cc Norton), 58. President's Rose Bowl (best performance against standard time, A Jefferies (493cc Triumph), O. Yorks Evening Post Rose Bowl No 2 (second best performance against standard time), TE Flintoff (493cc Sunbeam), 5. Yorks Evening Post Rose Bowl No 1 (best performance on observation only), 0E Rowley (498cc Matchless), 38. Raspin Bowl (second best performance on observation only), R Wilkinson (493cc Sunbeam), 44. Galloway Cup (best under 200cc), CH Wood (172cc SOS). Junior Tankard (best over 200cc and under 300cc), WT Titian Jnr (249cc Velocette), 64. Special Prize (best performance by rider competing in Scott Trial for first time), WJ Smith (346cc OK Supreme), 82. Folbigg Cup (best performance on Scott machine), W Longbottom (596cc Scott), 109. Scott Trophy (best one-make team), Sunbeam: R Wilkinson, C Helm and TE Flintoff, 184. Myers Cup (best team, any make), 'Sonnenblick': L Heath (497cc Ariel), J Williams (348cc Norton) and A Jefferies (493cc Triumph), 151.



This press agency pic was captioned: "A freak motor cycle and sidecar, costing £500, has ben built specially for the Ministry of Transport by the Department of Scientific and Industrial Research at Harmondworth, Middlesex. It will be used to discover which type of road surface best prevents skidding. Parts of the chassis are made of steel plates while wheels are designed to give half skid all the time. Dynamometers are carried to measure the various tests made." The outfit was pictured at work on the Colnbrook Bypass.

"THE SECOND OF THE SERIES of mass meetings of motor cyclists organised by the British Motor Cycle Association was held at the Woodcock Street Baths, Birmingham, last week. In spite of very wet weather there was a good attendance—the estimates varied between 450 and 600—when Alderman WF Lovsey, JP, the chairman, opened the meeting. Mr. Lovsey is the chairman of the Birmingham Watch Committee...He said he realised that the motor cycle was not a dangerous machine if properly handled, but there was, he thought, a section of riders who failed to exercise the care that was necessary on the roads to-day...there were 16,000 motor cycle owners in the city, and during the past year, out of a total of 12,053 motor-ing prosecutions, 3,015 of those involved had been motor cyclists. The next speaker was Capt W Strickland, MP, who stated that too great an emphasis was laid on fatal accidents and not enough on the contributory causes. He went on to say that in this respect motorists and motor cyclists did not always get a fair deal from the police and magistrates. He welcomed the BMCA, and promised his full support, on behalf of motor cyclists, in the House of Commons, but pointed out that much more notice would be taken by the Government if, when making a protest, MP.s were able to show that they had the full weight of motor cyclists' opinions behind them. He therefore urged all to join the BMCA. Mr JW Bryan, a director of BSA Cycles, said that proper support for the Association would open out a new era for an historic movement. He considered that licences should be granted to people of a lower age than at present was the

case. Lord Sandhurst, 0BE, chairman of the BMCA, suggested that a gentle warning from the police in such cases as speedometer-less machines being driven at slightly over the 30mph limit would do a great deal more good than prosecutions. Maintaining that motor cyclists should have a representative organisation of their own, Mr TF Watson, of the Birmingham MCC, also thought the Government might, with advantage, reconsider the present rates of taxation. Then it was Graham Walker's turn, and he appealed for—almost demanded—less apathy on the pact of motor cyclists. He asked for short period licences, better rear lighting on lorries, and better road surfaces. He called on the Government to ensure that riders who passed the driving test should be able to secure insurance at reasonable rates. Mr Ernest Humphries wound up the speeches wilt a plea for uniformity in road construction and police methods. "

...and that's all the yarns I could track down for 1935, at least for the time being. Have a decko at some of the ads that tempted motor cyclists to put their hands into their pockets; see you in 1936.



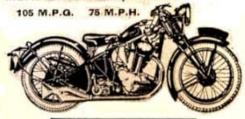
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electric horn capable of waking a sleepy lorry driver.

In addition, its Miller lamp switch is ingeniously arranged so that small boys cannot turn from 'park' to 'head' if you take the key out when you leave the bus. There is a hinged rear guard to facilitate tyre repairs; a fine tool kit; simple, one-side gear box adjustment; spring-up central stand; accessible and robust cam adjuster for the back chain, and clean handlebars with simple controls."



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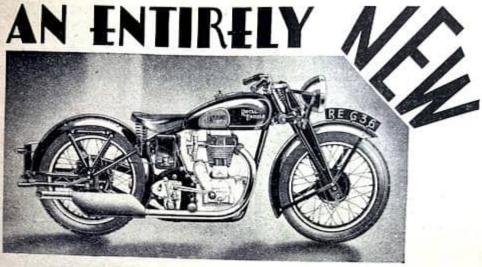
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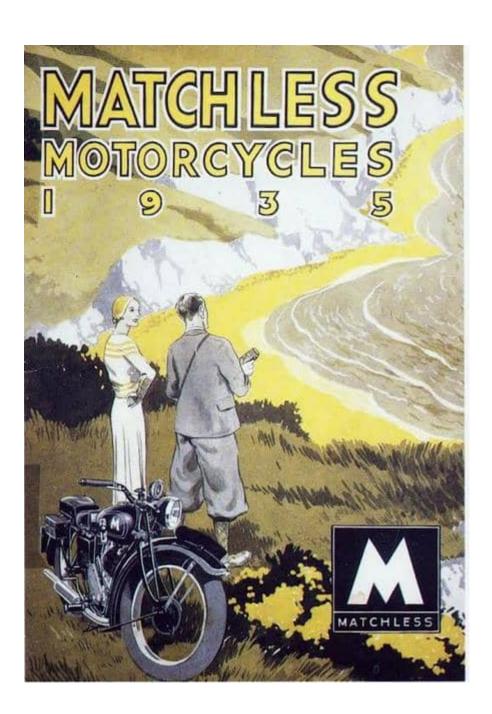
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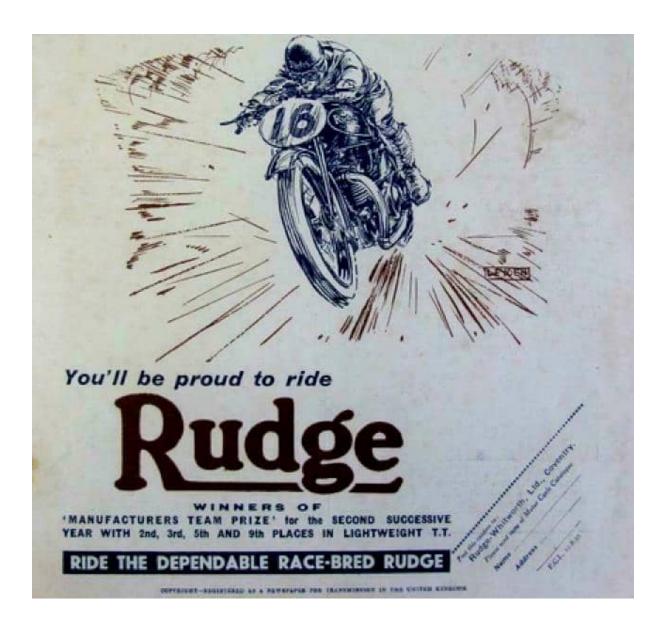
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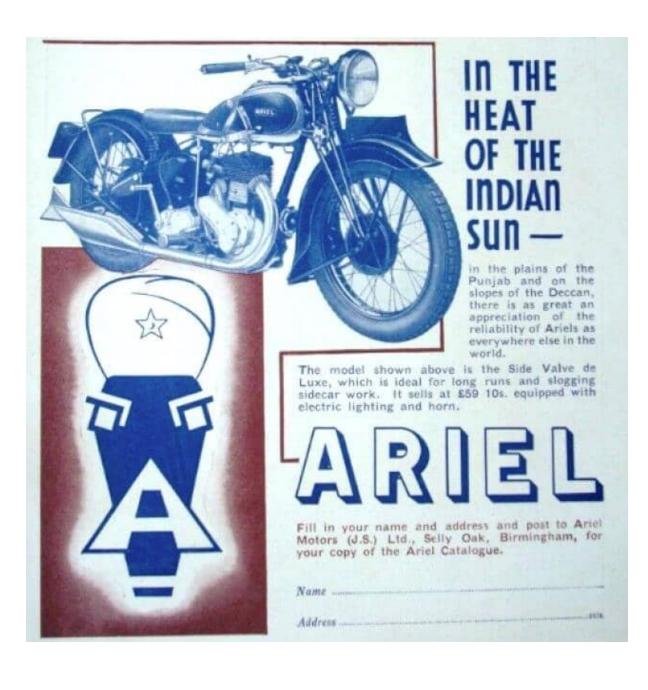
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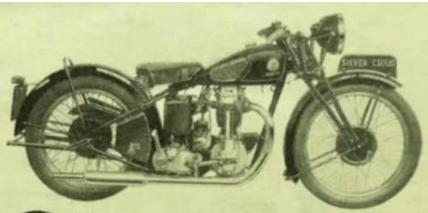
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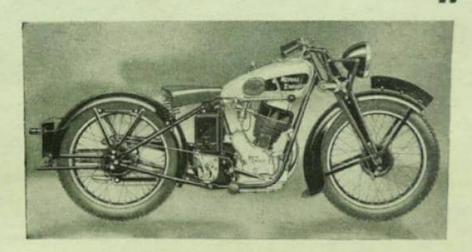
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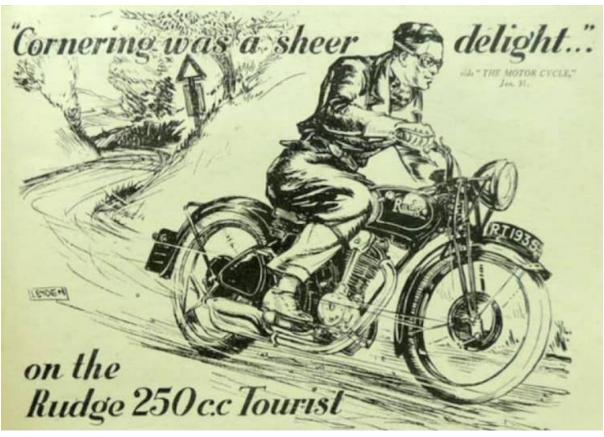
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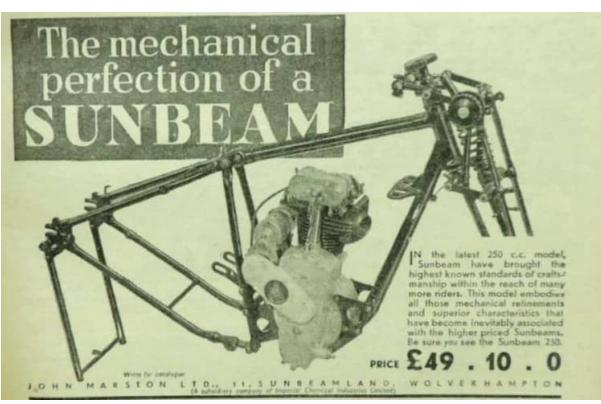
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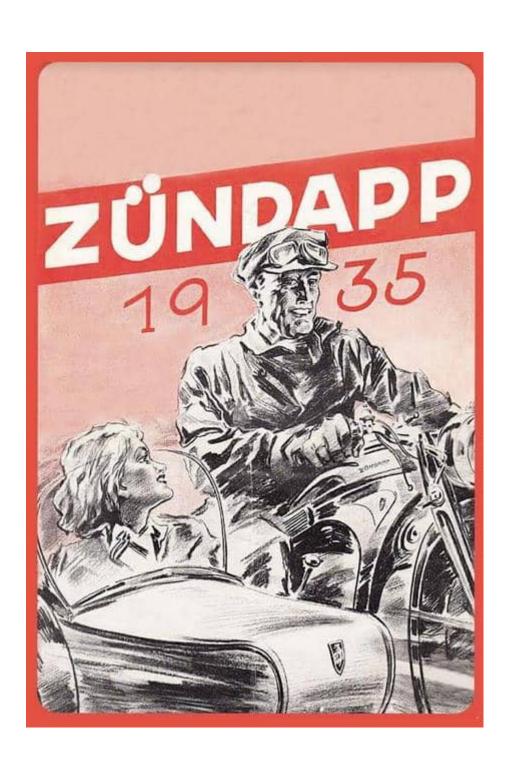
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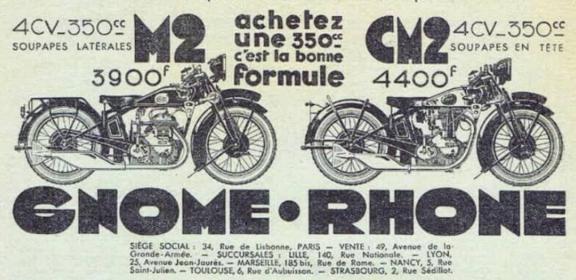
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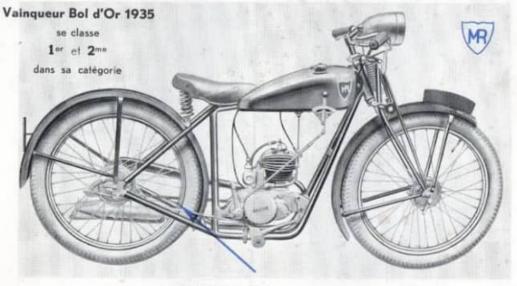
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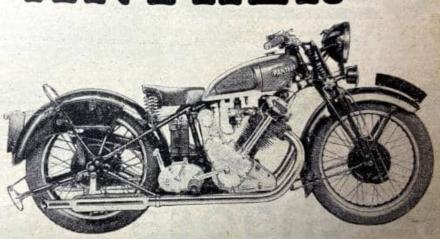
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"MORE MOTOR CYCLISTS are using their machines all the year round...Three out of four motor cycles in August of last year were still in commission at the end of November...the number for last February was over 63% of the figure for August—and was 30,000 greater than that of the previous year. That a large proportion of motor cyclists now use their machines winter as well as summer is testimony to their good sense and, more particularly, to the stability of the modern motor cycle. Even on the recent days of snow and ice many motor cyclists were to be seen on the roads. To-day the stability of the two-wheeler is little short of extraordinary, while as for the sidecar outfit, as the world knows, this has long been proved to be the safest mechanically-propelled vehicle of all."

HITLER PROMISED THAT within 18 months Germany would no longer need to import petrol and that within four years it would be making enough synthetic rubber to meet its needs. There were sustained calls for similar moves in Britain where it was said our vast coal reserves could have made us self-sufficient in fuel.

A COAL-TO-PETROL PLANT opened at Erith, Kent. Each ton of coal was said to produce 15gal of petrol, 20gal of diesel and 15cwt of smokeless fuel. Japan also built a coal-to-oil plant.

OBSCURE BUT TRUE: for the first time all automotive bulbs had to be marked with their wattage; headlights over 7W had to be turned off as soon as the vehicle stopped moving.

THE GOVERNMENT NEEDED MONEY for re-armament and decided roadtax no longer had to be spent on the roads. Part of the diverted Road Fund would be spent on motorcycles: the Army was keen to standardise on a bike to replace its V-twin Beezas, sidevalve Triumphs and flat-twin Douglases so BSA, Norton and Rudge were invited to submit machines for a 10,000-mile evaluation. Norton's well-proven 500cc sidevalve 16H won the day and 100 were immediately ordered to equip troops en route to Palestine. The war office decided a lightweight was need for training and bought a batch of G7 250cc Matchlesses as well as a batch of G3 ohv 350s.

AS THE FIRST step towards establishing a national road system the Trunk Roads Act transferred responsibility for 4,500 miles of main roads from local authorities to the Ministry of Transport. But with more than 1,400 independent road authorities looking after 180,000 miles of roads there was a long way to go.

TRANSPORT MINISTER Hore-Belisha noted that 500 motorised vehicles had been registered ever day since he took office two years before (a total of some 183,000). He announced plans to ban L-riders from taking pillion passengers and appointed a corps

of Divisional Accident Officers to investigate accidents. They were all experienced road users; at least one rode a motorcycle to work.

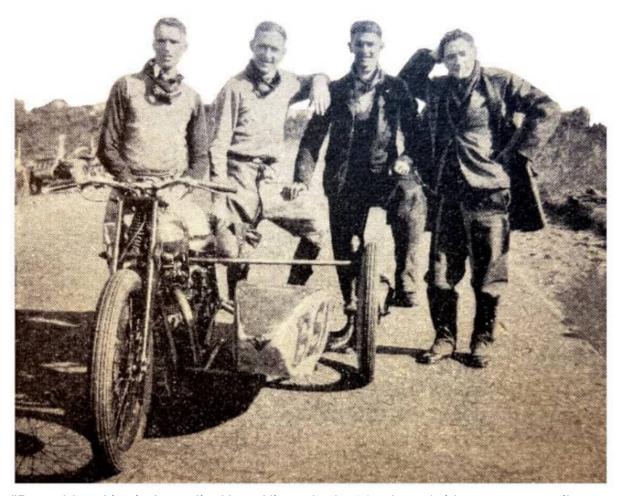
THE BRITISH Motor Cycle Association drafted a Motor Cyclists' Grand Charter including a proposal for police courts to sit in the evenings, allowing misbehaving motorcyclists to face the music without the added penalty of losing pay by attending court. Its case was put to the Home Secretary by Captain Strickland MP who, as a committee member of the BMCA, gave motorcyclists a voice in Parliament. But to no avail: the courts remained firmly closed outside office hours.

MANY RIDERS had been fined for trickling over the line at the new 'Halt' signs when the road was patently empty of all other traffic but their complaints came to nought—a High Court judge decided that signs meant just what they said. Even on an empty road every vehicle had to come to a standstill.

THE METROPOLITAN Committee of Motorcyclists (MCM) was formed by a collection of London bike clubs "to campaign agains the increasing injustices which the motorcyclist has to bear". These included the Police Court practice of forcing riders to pay court costs even when they were found innocent of any wrongoing—and the fact that a single copper's allegation was usually enough 'evidence' to secure a conviction.

LORD NUFFIELD DENOUNCED the "persecution" of motorists: "No matter how law abiding a motorist is, he must have luck on his side of he is to avoid trouble with the police." He called for specialist motorists' courts, staffed by magistrates with some knowledge of motor vehicles. Not all cases were contentious—a cop giving evidence in the Highgate Police Court solemnly told the magistrate: "At the defendant's request I showed him our stopwatches. He said, 'Tick tock tick tock, old chap'."

A FRENCH RAILWAY company was using a fleet of 250cc combos set up to run on road and rail for track inspections.



"Record-breaking in Australia. Harry Hinton broke 14 solo and sidecar quarter-mile records in Australia recently with a 499cc ohv BSA. The mean speed with sidecar was 83.3mph for the flying quarter-mile. These records, are, of course, applicable only to Australia and New South Wales

A CROYDON motorist convinced traffic cops he was sober enough to drive by writing his name and address backwards and performing tricks with three matches and two glasses of water. Things were less flexible in Germany, where any driver or rider involved in an accident was bloodtested for alcohol abuse.

IN THE US an inner tube was marketed with a two-year 'no-puncture' guarantee.

THERE WERE 22,395 bikes on Kiwi roads.

AT A DINNER to mark the centenary of roads pioneer Macadam, the great man's great grandson called for roads to be paved with rubber.

FANCY THAT DEPT: A one-armed Bradford vegetarian set an English record by covering 36,000 miles in the year on his bicycle.

AT YEAR'S END 516,567 motorcycles were registered in Britain. January-October registrations were up 17% year-on-year to 49,820. Exports rose 22% to 16,399 despite

tariff and currency restrictions. Leading importers of British bikes were Australia, South Africa, the Netherlands, Denmark, Sweden and Switzerland. However a large batch of Triumphs went to Iraq; King Ghazi was a confirmed Triumph enthusiast.

ANYONE WHO committed three motoring offences in New York was automatically jailed.

RUDGE, NOW BACK on a sound footing, was bought by music company His Masters Voice (still in business as EMI).

AN ENGINEER proved, with the aid of graphs, that a 100mph TT average was a physical impossibility.

A FILLING STATION attendant in Miami builT a petrol-fuelled steam bike that returned 50mpg.

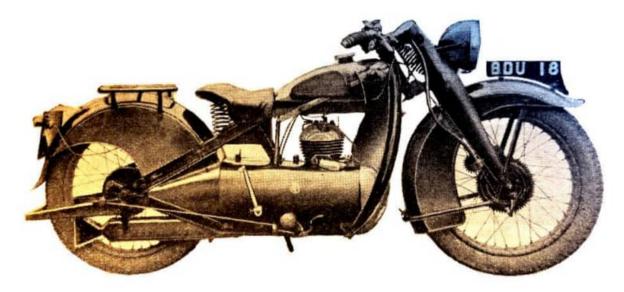
THE ITALIAN industry was building some exquisite lightweights for road and track.

GLOUCESTERSHIRE County Council fitted some green kerbside mirrors to help cut accidents in fog.



"WHEN THE FRANCIS-BARNETT CRUISER was introduced in 1933 it was immediately recognised as one of the outstanding models of the day. Subsequent tests showed that the performance of the model was well in keeping with its looks, and it rapidly gained an enviable reputation. This reputation is more than uphold by the 1936 edition of the Cruiser fitted with the 249cc Villiers deflectorless-piston engine. The most outstanding features of the model are the comfort and cleanliness that it affords the rider. Handlebars, footrests and saddle are well placed in relation to one another and really do give 'armchair' comfort. The pan-type saddle is exceptionally wide and has long supple springs, while the handlebars are of such a shape that the hands rest comfortably upon them. No oil or dirt from the engine can reach the rider's clothing, while the legshields and heavily valanced mudguards are very efficient. Leggings or waders are unnecessary for town work or on short runs in wet weather; and it is only when the rider drives through deep puddles at speed that any splashes reach his legs. After long runs on wet and muddy muds the machine can be cleaned in a few moments, and it is no idle boast of the makers when they say that the machine can be washed down with a hose. Starting at all times proved exceptionally easy. When warm a light dig on the kickstarter was sufficient to set the engine ticking over, and when cold the engine could be relied upon to fire on the first or second kick if the strangler was closed and the carburetter flooded. At no time during the test did the engine stall, and although fourstroking would occur when running light or on the over-run, this was never unpleasant

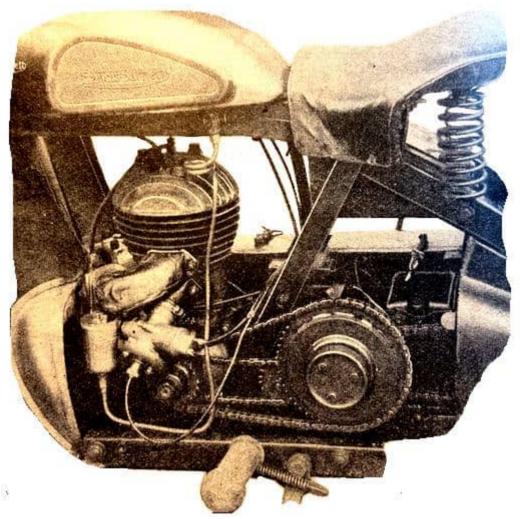
because of the very subdued exhaust note. At all other times the engine was smooth and re markably free from vibration. Flexibility is another of the Cruiser's strong points. At all speeds above 10mph the engine was quite happy in top gear and from this speed would accelerate



"The 'Cruiser' combines a smart appearance with efficient enclosure of the 'works'. Five minutes' work with a sponge after a long run on muddy roads was all that was required to bring the machine into the condition shown"

smoothly even if the throttle were snapped wide open. Naturally, to obtain the best acceleration it was necessary to use the gears, and the engine proved lively, particularly in second gear. In third (7.7 to 1), the machine took 13 seconds to accelerate from 20 to 45mph, which is, particularly creditable when it is considered that the maximum speed in this gear was 47mph. In top gear, between the same speeds, the time taken was 20 seconds. Maximum speeds were: bottom gear (16.78 to 1), 27mph; second gear (10.26 to 1), 41mph, and top gear (5.7 to 1), 56mph. These figures were taken with the rider heavily clothed; by lying down the maximum speed in top gear was increased to approximately 59mph. The engine appeared happy at all speeds and on long periods of full throttle failed to show any signs of dis-tress—45mph could be maintained over giveand-take roads without effort or without the slightest tiring of the engine. The steering of the Cruiser is very light and at first there was a tendency to oversteer the machine on corners. Once the rider had become accustomed to this the steering proved to be above criticism. There was no sign of wobble or wander, although the machine was driven over bad roads at various speeds. An exceptionally wide steering lock makes the Cruiser very easy to handle, and it could be ridden round in a complete circle on a secondary road.without removing the feet from the footrests. On greasy city roads the machine was as much at home as on rough surfaces and inspired confidence. During the test many miles were covered on ice-covered roads, but the machine never showed any inclination to skid, although deliberate liberties in the way of cornering were taken with

it. Both brakes are powerful and well up to the work required of them. The rear brake pedal is situated conveniently beneath the rider's right toe, but the lever for the front brake requires rather a long. stretch of the hand to operate it. The same criticism can be applied to the clutch lever, but the clutch is delightfully sweet in action and does not tire the hand even when the machine is used continuously in traffic. To obtain the best gear changes it was found necessary to let in the clutch as the gear was engaged, this being so either from neutral or when on the move. The gear change, however, is very light and the lever is placed so that it does



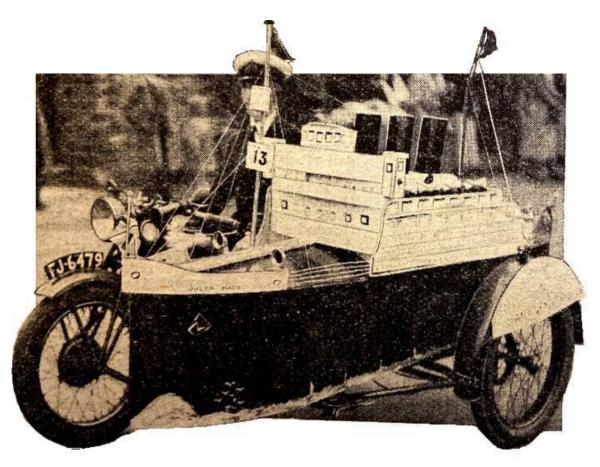
"With the

near-side half of the bonnet removed, primary Chain adjustment and carburetter cleaning become simple matters. The neat battery mounting and the extension of the float-chamber tickler will be noticed."

not foul the rider's knee. At a maintained speed of 35mph the consumption of petroil was 78mpg. On a run of 170 miles the consumption was only slightly heavier, although the run included many miles of full-throttle work, hill climbing, and much stopping and starting. With the petroil lubrication the oil consumption worked out at 1,300mpg. At the beginning of the test there were two rattles in the machine: one from the toolbox and the

other from the front mudguard, which had been damaged in transit. Both were quite easily cured. No rattles emanated from the bonnet sides or legshields. With the bonnet sides removed, the machine becomes more accessible than most, and such items as cam lever adjustment of the primary chain and a quickly-detachable rear mudguard considerably simplify maintenance work. Mounted on the steering head is an instrument panel which houses the lighting switch and ammeter. The Miller lighting equipment proved powerful enough for all normal use, although for fast touring at night a better head light beam would be desirable. During the course of the test the bracket carrying the horn broke away from its fixing; this was the only component with which any trouble was experienced. The makers of the Cruiser have achieved a very high standard of silence with the model. At normal speeds the subdued exhaust note renders the machine quite unobtrusive, and this, combined with the smoothness of the engine and the comfortable riding position, makes the machine a delight to ride under all conditions."

"BEHIND THE SCENES there have been moves with the idea of ensuring that motor cycles are easier to start. The difficulty some riders experience in this direction has been brought home to certain manufacturers. One famous maker admitted the impeachment and added that in his opinion the chief cause of the trouble has been that magnetos were not what they used to be. He had, he said, gone into the matter and felt that once again starting could be construed as easy. Personally, I feel that coil ignition should be developed to a greater pitch of perfection. Given a battery that does not let one down—to which various users have been replying 'the nickel iron battery'"—there is no reason at all why coil ignition should not be much better than a magneto for normal work. After all, the coil is stationary and does not rotate as is the case with a normal-type magneto, and it can be tucked away in a position where it is completely protected. As for the contact breaker, there is no difficulty in making this absolutely reliable, nor in providing a 2 to 1 gearing in the case of a four-stroke. That leaves the wiring—which should be substantial and armoured and have proper connections at its ends—and the dynamo, which we pretty well have to possess in any case. For myself, I cannot see why the coil set should not become more reliable than the magneto. Then we should have really fat sparks when we press the kick-starter pedal down irrespective of the position of the ignition control."



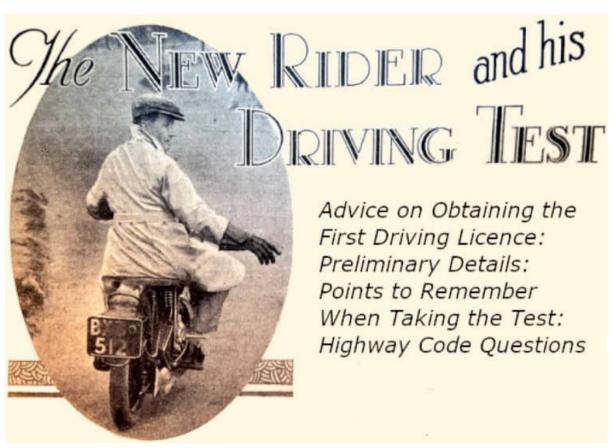
"The 'Queen Mary' in dry dock. An ingenious entry in the decorated sidecar class at a recent Dartmouth (Devon) Carnival."

"THIS IS A TRUE 'human story' and is recounted by a Glasgow motor cyclist. He was returning home from his garage at about 2am after a night run. Then he saw something which quickened his steps—a police constable flashing his torch in a darkened shopwindow and peering intently inside. Were some dangerous safe-breakers about to be apprehended? He hastened to the side of the constable, ready to help if need be. Crouching forms of burglars? No; the constable was playing the beam of his torch on an 'International' Norton in the window!"

"HERE is yet another striking testimony to the value of motor cycles. Maybe you read it in your paper earlier this week. A special service of motor cycle despatch riders ran between Buckingham Palace and Fort Belvedere, near Sunningdale, King Edward's private residence, where he was spending the week-end. For such work motor cycles are invaluable, and it is good to find the King—the first monarch to fly—makes -use of another modern boon, the motor cycle."

"DURING a recent week-end I made a trip of 26 miles each way under particularly bad, ie, icy, conditions. So bad, in fact, that many cyclists were 'walking' their machines down hills, and there were very few motorists out on either two or four wheels. In those few miles I met no fewer than three cars and four motor cycles bearing that large and significant red L, and two of the motor cyclists had pillion passengers at that. It is true

they had the roads very much to themselves, but if those learners had the nerve to practise on roads which were, literally, sheets of ice, it speaks well for their determination, and even more for the modern motor cycle as a safe means of transport under all road conditions. I gave them plenty of room, but they all appeared to be blissfully contented with the conditions, and to be riding with the utmost confidence. May they all be passed off with flying colours when their exams. come."



"ALL THE YEAR ROUND there is a steady influx of newcomers to the large army of seasoned motor cyclists. Some of them are proud owners of shining new models; others are equally proud of their somewhat dilapidated and very second-hand mounts. One and all would be in the seventh heaven of delight but for one thing—the Driving Test—that is unless they were in possession of a driving licence before April, 1934. Last year I went in for a driving test myself. Very probably I was one of the first motor cyclists to be tested, and, although I have been a rider for many years, I can honestly say that there is little to worry the tyro. However, there are three things that are essential. First, the rider must be absolutely at home with his machine. Secondly, the Highway Code must be learnt—but not parrotwise. The third requirement is common sense. What are the steps to be taken previous to going in for the test? Well, the beginner must first apply to the local licensing authority for a provisional driving licence. His nearest money-order office will provide the necessary form and the name and address of the licensing authority. After filling up the form he must take or send it to the licensing authority together with five shillings. The licence received, the tyro can ride his machine for a

period not exceeding three months, during which time he can become fully accustomed to his machine and take his driving test. The red letter 'L' must, of course, be displayed on the front and back of the machine until the test is passed. A copy of the Highway Code will be issued with the licence and should be read carefully before the new rider takes to the road. When he has become confident the beginner should fill up a drivingtest application form—obtainable from the licensing authority—and send it, together with a fee of 7s 6d, to the nearest authority controlling his area. For this purpose a list of driving test authorities printed on the back of the application form. In due course he will hear from the authority, fixing an appointment with an examiner—in my case I was offered several alternative times to suit my convenience. Be at the appointed place in plenty of time, and if there is an office there walk straight in—don't expect the examiner to be waiting for you beside the kerb. If the applicant is 'ploughed' in the examination, and the probationary period of three months has elapsed, a further provisional licence (cost 5s) must be taken out, for a month has to elapse before the driving test can be taken again. Remember, there is nothing to worry about in the test, provided it is tackled seriously and in the right spirit. When I undertook my test I was on a solo machine. This is what happened. First, my driving licence was inspected. Next I was asked to sign my name in the examiner's book, so that the signature could be checked with that in my driving licence. Then the insurance certificate was perused. I was next tackled on the subject of the Highway Code. My examination, if you could call it that, was carried out in the manner of an ordinary conversation—a method calculated to give confidence. Now the questions were obviously designed to see if I had not only learnt the Highway Code but, more important, knew its application. For newcomers I cannot stress this point too much, and so that they may he guided I am roughing out a short list of questions of the type which they will very likely be asked. Just see if you can answer them correctly: (1) What is the number of driving signals that a motor cyclist should give? Give also a brief description of them. (2) What do you understand by the traffic lights? What is their sequence? (3) When can you turn left against a red traffic light? (4) What steps would you take to turn into a road on the right? (5) When would you overtake on the left? (6) What do you understand by traffic lanes and how would you drive along a road so marked? (7) What is the principal law with regard to pedestrian crossings? (8) If at a cross-roads a policeman fails to notice you, what should you do? (9) What is the Highway Code and what is it for? When answering an examiner it is always advisable to show a genuine interest in the answers. Attempt if possible to enlarge on the points raised. It will help to convince the examiner that not only do you know the Highway Code, but that you also understand its application. In my particular case the examiner questioned me before asking me to perform a few manoeuvres on the road. Then, having proved I knew my Highway Code, I was requested to proceed to a certain road. There I was asked to ride down it, turn round at the end and come back. Although the road was free from other traffic, I was told to regard it as a busy thoroughfare. In a case such as this the learner must take the greatest pains to give all the necessary signals. It might even be to

his advantage to pull into the side of the road, stop, and look round before turning round. His chances will also be considerably enhanced if he keeps his feet on the footrests whenever he is in motion. Likewise, riders using machines with a hand gear control would be well advised to refrain from looking down at the gate. After all, it is fairly easy for an examiner to assess the ability of a rider simply by watching him start off and stop. Obviously if he wobbles into the centre of the road, as some beginners are apt to do. he will lose one or two marks. He most be able to use his clutch in conjunction with his brakes, and for this purpose applicants are frequently asked to stop and restart on a hill without slipping backwards or leaping forwards. Sometimes a pre-arranged signal is given in order to see how the motor cyclist can pull up in an emergency. In this instance I was asked to pull up immediately my examiner raised an arm. In the case of passenger machines the examiner frequently accompanies the driver, who might, in these circumstances, be called upon to stop when he least expected it. In the case of a three-wheeler fitted with a reverse, the examiner would in all probability request the driver to turn round, using a side turning for the purpose...Really, the whole test is very simple and free from any 'catches', but it must not be taken lightly. It is not a test of skill. It merely shows the examiner that you are a safe and proper person to be in charge of a motor vehicle, and that you are capable of coping with the traffic conditions of to-day. I can only reiterate that there is nothing to cause the beginner any worry. If he should have the misfortune to fail—and I can assure him there is very little chance of this—he can console himself that the errors he made were in a test and were not the real thing, in which case the results might have been very different! The following are the answers to the questions on the Highway Code: (1) The number of driving signals is four. To slow down or stop, the right arm should be extended sideways and moved up and down from the shoulder, keeping the wrist loose and the palm facing downwards. To turn to the right, the right arm should be rigidly extended to the right, with the palm facing forwards. To turn to the left, the right arm should be extended and rotated from the shoulder in an anti-clockwise direction. To indicate that other vehicles can overtake, the right arm should be extended below the level of the shoulder and moved backwards and forwards. In this connection it is well to remember that the onus rests on the driver of the overtaking vehicle. (NB—All signals must be given with the right hand.) (2) The sequence and significance of the traffic lights are as follows: Red means stop and wait behind the line on the road. Red and Amber still mean stop, but traffic should prepare to go. Green means proceed, but with • particular caution if turning to left or right. Amber means stop at the line, unless it has already been passed or you are so close that to pull up might cause an accident. (3) It is permissible to filter, ie, turn left against the red signal, when a green arrow is shown at the same time as the red signal; traffic can then proceed only in the direction indicated by the arrow. (4) To turn to the right, the right arm should be extended to the right. Filter towards the crown of the road well before the turning. (5) Overtake only on the right, except when a driver in front has indicated his intention to turn right. This a rule does not necessarily apply in one-way streets. (6) In

the majority of cases where traffic lanes are employed, the road is divided down its length into three equal pacts by two white lines. The centre lane should be avoided except when overtaking another vehicle. Otherwise the left-hand lane only should be used. (7) Where a pedestrian crossing is not controlled by police or light signals, drivers of vehicles must give way to any pedestrian actually on a crossing. (8) Wait until he does notice the vehicle. On no account must the horn be sounded, except in the case of emergency, when a vehicle is stationary. (9) The Highway Code is a standard of conduct for British roads. Its provisions are intended to make the roads safer for all classes of road user."—Ambleside



these autograph hunters! Gracie Fields, the famous comedienne, 'obliges' two police officers in O'Connell Street, Dublin." And doesn't the Garda sergeant in the sidecar look pleased by the photo op.

"Oh

"MUCH HAS BEEN WRITTEN lately on the subject of mudguarding. Certain manufacturers have found that narrow front mudguards are a *sine qua non*; their customers will not accept wide and really effective valanced guards—they do not look sufficiently sporting! From this it might be assumed that protection from mud and dirt and sporting lines are as poles apart. That this need not be so is proved by at least one of the 1936 models. The enclosure and shielding in this case, instead of detracting from the lines of the machine, improve them considerably. It is not a big step to visualise sports mounts in which the shields blend to give a streamline effect—that fulfil the dual function of making the machines to which they are fitted look still more sporting and at the mine time affording almost complete protection to the rider. No one thought that forerunner of the various foreign transverse twins, the old 398cc ABC, in any way unsporting. Quite the reverse in fact, yet it was a motor cycle that could be ridden anywhere without the rider having to don waders."—Ixion

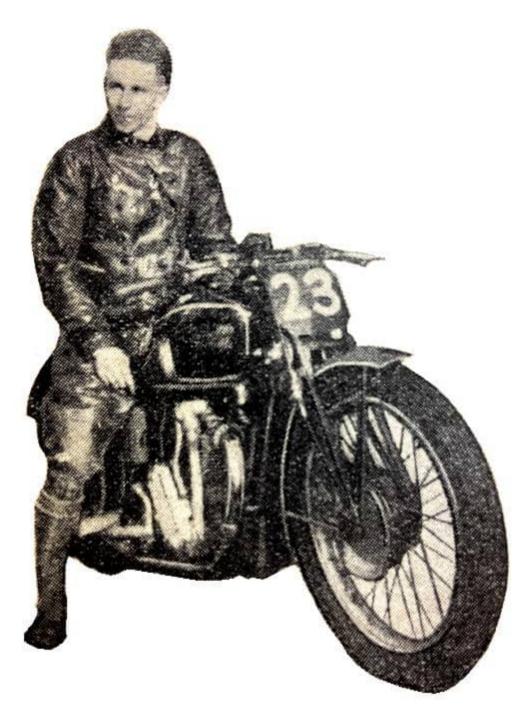
"JOE VAN HOOYDONK, who died the other week, was a great man in the early days, and embodied Minerva engines in bicycles bristling with all sorts of practical little gadgets. He first achieved real fame as the apostle of the tricar, with his Phoenix Trimo. How he used to grin at meets of the MCC, when the rest of us sprinted along the road on a hot day in our leathers, attempting to get our engines firing, whilst he coolly extracted a starting handle from his tool-box, wound up the engine of his Trimo, and glided away on the clutch! So in revenge we pinched his handle, and poor Joe had to sweat and strain to push off. He once teased me to death at the end of a Land's End-John o' Groats trial in which his Trimo scored a non-stop gold, and I scraped up a gold by the skin of my teeth, reaching Groats at the last possible second with my bike falling to bits. I dumped it in the stable at Groats, and begged a lift back to Thurso in a car. Half way to Thurso my car was sitting on the Trimo's tail when the Trimo's back wheels suddenly folded outwards as the rear axle snapped. Joe advertised that gold medal for months afterwards, and I used to carry a copy of the ad in my vest pocket, and show it to him whenever we met."—Ixion

"TO LET YOU INTO A SECRET, I don't intellectually approve of anything for which Hore-Belisha is famous. I hae ma doots whether the 30 per has reduced casualties. I note that except when a cop is around motors ignore pedestrian crossings, and pedestrians expect motors to ignore them. But he has produced a genuine miracle in effecting a substantial reduction in road deaths and injuries for 1935, when previous tendencies, plus the increased traffic, threatened a heavy increase. I don't know how he has accomplished this. He probably thinks that speed limits and pedestrian crossings and such like are the main factors. I think the decrease is mainly due to (a) educating, and (b) frightening road users. Nobody can prove which of us is right, but anyhow, hats off to the man who saved more lives and limbs in 1935 than many hospitals! Incidentally, do you know that although until 1935 the total road casualties were 'increasing', yet the fatal accidents blamed by the police on to motorists have been 'less' for four years than

the 1930 figures? Who, then, was to blame for the rise in the totals of those four years? Cyclists? Hush—Mr Stancer\* may be listening. Pedestrians? Hush—the Pedestrians' Association will annihilate you at sight.. To put sarcasm on one side, the police deal only with the motor as a 'direct' cause of smashes. It can also act as an 'indirect' cause. For instance: Aunt Maria crosses the High Street avec parcels. In 1906 motors were few, and she stalked across. In 1936 motors form an almost continuous stream, and Aunt Maria hesitates and scutters. She pirouettes in front of a motor bus...The police hold the motor bus not guilty. So it is—in a direct sense; but if there had not been such a lot of motors in the High Street Aunt Maria would still be alive."—Ixion

\* George Stancer OBE was a racing cyclist who became editor of *Cycling* magazine and president of the Cyclists Touring Club.

"A CROWD, OFFICIALLY estimated at 60,000, witnessed the first Port Elizabeth (South Africa) '200' road race field recently. The event was won by HJ Brook (348cc Velocette) at an average speed of 75.5mph. There were 26 starters, including J Sarkis and JC Galway—the latter the winner of the last South African TT."



"The

popular winner—HJ Brook on his 348cc Velocette."

"OVER 1,000 PEOPLE witnessed the 1935 Grass-track Championships of Victoria (Australia), which were held under ideal conditions on the Warragul racecourse, about 65 miles from Melbourne. In the big event of the day Reg. Hay (Coventry-Eagle), the veteran Tasmanian rider, retained his title of solo champion. Hay rode a hectic race to win by four seconds from Gordon Wilson (346AJS). Les Darby was third, three seconds behind. In the sidecar events Bill Longley (Excelsior-JAP) won both the 500cc championship and the All-Powers event breaking the class record by 11seconds in the former event."

"FOUR THOUSAND GAS street lamps in the Borough of Camberwell, London, are to be superseded by electric lamps."

"THERE ARE 178,507 miles of public highway on Great Britain. About 75% of the total—133,229 miles—is in England; 18,607 miles (about 10%) in Wales; and 26,411 miles (about 15% in Scotland. Britain has gained 7,016 miles of first-class roads in the past 13 years. Britain now has 26,779 miles of Class I main traffic arteries and 16,837 miles of Class II less important traffic routes—a total of 43,616 miles. In 1921 the total length of classified roads was only 36,000 miles."

"MOTOR CYCLE BASEBALL, a new game in the United Stets, is said to be very popular with spectators."

"YOUR CORRESPONDENT 'ARDUPP' complains of poor mpg, and requires tips in this respect. I am of the opinion that he has been riding a very bad machine, for there is nothing in obtaining over 100mpg with a two-stroke engine. Perhaps any own experience will support this. I have two machines; one a 1929 196cc Francis-Barnett-Villiers, which has been on the road continuously for the last six years and still gives me 125-130mpg. It is a perfectly standard machine in every way, and, beyond the usual running adjustments, has not been overhauled in any way. The other is a 1923 799cc twincylinder with heavy adult two-seater sidecar; this outfit is used throughout the summer months for week-end jaunts and holidays. It is in perfect mechanical condition and often takes four up on long runs. It has the usual de-coking every spring, but nothing else (for it does not require anything else); this outfit regularly gives .an average of 68-70mpg carrying four adults. Perhaps your correspondent will think this is an exaggeration, but the agent for AJS and Francis-Barnett machines in Chester will bear out what my machines do.

#### RHG Hankinson, Chester.

I WAS INTERESTED IN A letter from 'Ardupp' regarding petrol consumption. From my own somewhat small experience I can state quite definitely that it is necessary to coast down hills, and also one must not exceed 30mph for any distance if a decrease in petrol consumption is aimed at. This is obviously true for all capacities and makes of machine. I have a 150cc overhead-valve BSA which is 18 months old and has done 14,500 miles. I use it for business daily, and regularly get a fuel consumption of 150mpg. The road I use is fairly curly and awkward, and 30mph is rarely attained anywhere en route.

#### Ralph W Smart, Carshalton, Surrey.

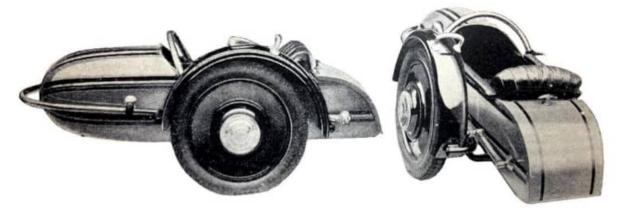
"I HAVE READ with interest the letter in the 'Blue 'Un' from 'Ardupp' concerning petrol consumption with the two-stroke he owned. I think his 50mpg was very poor. I own a 596cc two-stroke fitted with a two-seater sidecar, and my mileage is in the region of 70mpg. 'Ardupp' won't catch me coasting down hills, and if he gets behind me he won't find me doing a steady 30mp. I think if your correspondent had looked after his two-

stroke, both inside and out, he would have found it much more economical. **'Sludge'**, March, Cambs."

"FROM Mr AE Cooke, organiser of tomorrow night's Combined Motor Clubs' Charity Ball at the Royal Opera House, Covent Garden, I learn that the attendance will exceed 2,500, which I think you will agree is a staggering figure. Sir Malcolm Campbell has promised to attend, while Elsie and Doris Waters are to perform on the stage. There will be cabaret shows at 11.15pm and 12.15am. For the benefit of those who might wish to get in touch with him, Mr. Cooke's address is 91, College Road, Kensal Rise, London, NW10."

"DURING THE PAST FEW years there has been a tendency on the part of German sidecar designers to break away from the more orthodox style as regards both the bodywork and chassis. Different methods of production have resulted in sturdy, accurately-built sidecars, suited for hard work over the by-roads of the Continent. Now comes the news that one German make, the Steib, is to appear in England. For the time being only two models will be marketed. Both will be of the sports type, differing only as regards the bodywork. To British eyes the Steib sidecar sparkles with unusual features, the most interesting of which concern the chassis. The main chassis member consists of a single tube in the form of a long fiat U, with the open end at the back. Linking the open end is a shallow U-shaped bar, which is welded at each end. The wheel is carried on a long spindle which is clamped to the main chassis member. It is worthy of note that all parts of the Steib chassis, except the cross-bar, are bolted into position and not welded or brazed. An unusual method of suspension is employed for the all-steel sidecar body. The forward end of the body is attached on each side to lugs rigidly mounted on the chassis. The sidecar is, however, free to pivot on these lugs. At the rear are two horizontally placed tension springs, one on each side of the body. The forward ends of the springs are attached to adjustable lugs situated at the ends of the main frame member, and the other ends of the springs are connected to lugs at the rear of the sidecar body. In view of the part played by the side-car body in its own suspension, it is interesting to note that there is no actual body framework. Throughout the bodywork a method of skin-stressing is used in conjunction with steel panelling. The nose of the body is built-up with pressed-steel panels, spot-welded together. The lugs at the four points of suspension are backed with large-diameter steel plates, which distribute the stresses over a wide area. The bodies are well upholstered, with spring seats and backrests, while wide footrests are provided. Both models available in England have quickly detachable wheels with a tommy-nut fixing. The wheels run on large-diameter roller races which come away with the wheel when the latter is removed. The Standard Sports model is fitted with a clip-on disc wheel, whereas on the Luxury Sports the wheel is chromium-plated and the disc is an extra. The Luxury Sports model has a roomy locker, the lid of which hinges backwards. and when open is supported by two chains sheathed in rubber. Incidentally, the locker lid is of particularly sturdy construction, having an inner panel of greater radios than the outer. The two panels are spot-welded

together at the top and bottom, while in the centre are two steel strips, which form stiffening ribs. The Standard Sports model also has a locker, but in this case access is obtained by hinging the backrest forward. These interesting sidecars are being handled by the sole concessionaires for Great Britain, Pride & Clarke, 158-160, Stockwell Road, London, SW9. The price of the Standard Sports model in this country is £20 10s., while that of the Luxury Sports model is £21 10s."



"Apart from its striking Continental lines the Luxury Sports sidecar is noteworthy for its many unusual features. The all-steel body pivots at its front end and is sprung at the back by two horizontal tension springs."



"A bird's eye view of the historic Tourist Trophy course, which has been used ever since 1911. The high altitude at which much of the course lies will be appreciated." The Blue 'Un published this glorious illustration with a report of calls for the TT course to be shortened and levelled out to fall into line with Continental practice.

WITH MUSSOLINI'S FASCISTI attacking medieval Abyssinia the British government did not want Moto Guzzis anywhere near the Island so Stanley Woods rode for Velocette in the Junior and Senior races. Having become used to the spring-frame Guzzis he must have appreciated Velo's innovative air sprung, hydraulically damped 'pivoting fork' (swinging arm) frame. Not for the first time, here's a contemporaneous report from the man on the spot, TT Special editor (and TT rider and staffer for the Green 'Un) Geoff Davison [the notes in italics are mine—Ed]. "Right from the beginning of the race the 1936 Senior was a Guthrie-Woods duel, and Jim made no mistake about it this time. He led Stanley from the very beginning of the race by 19sec on the first lap, 27 on the second lap, 23 on the third lap and 18 on the fourth. On the fifth lap there were 25 seconds between them, which Stanley had reduced to 22 by the end of the sixth. During that lap both of them broke the record, Guthrie with a lap in 26min 5sec and Stanley with one in 26-2. In the Grandstand we were in a fever of excitement. In 1935 Jim had led Stanley by 26sec at the end of the sixth lap—and Stanley had won. This year Jim had a 22sec lead—was history to repeat itself? Jim made sure that it didn't. His last lap in 26-22 was not his fastest, but nor was Stanley's, which was four seconds better than Jim's but had nothing of the 1935 fireworks in it. Jim won by 18 seconds and so wiped out his defeat of the year before. Stanley, however, had put up the record lap,



"An impression by Weightman of Stanley Woods (No 30) on his DKW in the Lightweight TT. He retired eight miles from home after making a record lap."

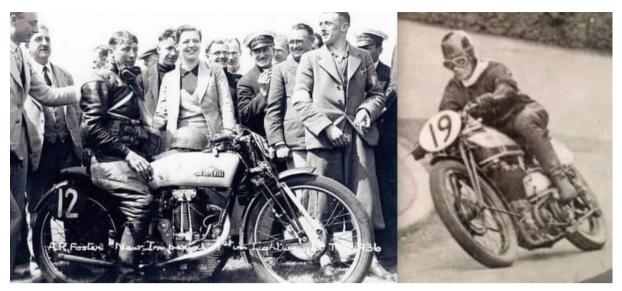
Norton won the team prize—so all was square. [Harold Daniell and George Rowley were out on the new AJS ohc V4s complete with superchargers but both retired with

mechanical problems.] There had been no minor 'gefuffle' in the Junior race held on the previous Monday. Stanley Woods retired early on [his cammy Velo had engine troubles at Sulby] and Jim Guthrie led the first lap, closely pursued by a newcomer to the Norton team, Freddie Frith [who was recruited after winning the 1935 Manx GP]. At the end of the fifth lap Guthrie was delayed at Hilberry [to replace his drive chain]. He had taken 31min for the lap, as against the 28min odd of his others, and had dropped to third place. He carried on, however, and picked up to second on the sixth lap. Then came news that after his stop at Hilberry he had received the assistance of a marshal in restarting his machine. It was announced that he was to be excluded from taking further part in the race and orders were sent out by telephone for him to be stopped at Ramsey. Immediately he was stopped he got on to the telephone to the Start and was told the position. He then re-mounted and carried on at speed to the end of the race, finishing, so far as I remember, fifth on time, although this was not officially recorded. Guthrie and the Norton firm at once put in a protest. This was upheld, the following announcement being issued during the evening: 'The stewards have considered a protest from Norton Motors Limited on the exclusion of No 19, J Guthrie. After a careful sifting of the evidence, and from voluntary reports by independent witnesses, together with a personal inspection of the ground, they are now of opinion that they were originally misinformed. The protest is therefore allowed. The official placings cannot be disturbed, but in the circumstances they recommend that the value of the prize attaching to the second place, which, in all probability No 19 would have occupied had he not been flagged off the course, be granted to the entrant. No l9 will be recorded as a finisher, and Messrs Norton Motors Ltd win the Manufacturers' Team Prize.' The whole affair, was, of course, extremely unfortunate, for, as the stewards had agreed, Guthrie would probably have run



Messrs Frith, Guthrie and White rode their Nortons to victory in the Junior and Senior as well as picking up the manufacturer's prize.

second to Freddie Frith, with Crasher White third. This would have given Norton a 1-2-3 victory. As it was, they had to be content with first, second and team prize. The results of the Lightweight race [delayed for a day because of mist and fog on the mountain] cheered us up a bit. Stanley Woods on the German [three-cylinder supercharged] DKW led on the first two laps, but in the third Lap Bob Foster (New Imperial) overtook him, only to lose his place on the fourth lap. In the fifth lap the positions were the same, with Stanley 14sec ahead. On the sixth lap Bob Foster overtook the Irish-German combination again and led by 35sec. Then Stanley retired near The Bungalow on the last lap [with an ignition problem] and Bob regained the Lightweight Trophy for Britain His speed of 74.28m.p.h. was nearly 3mph faster than that of Stanley's Guzzi the previous year." Foster owed his win to a gamble: company founder and MD Norman Downs cancelled a scheduled pitstop to take on oil. The New Imp had a notorious thirst for oil; Foster didn't call his mount the Flying Pig Trough for nothing. It was the last TT win by a British 250 and the last solo TT win by an ohv engine. Foster, by the way, was a newlywed; his bride's reaction to her TT honeymoon destination is not recorded. Tyrell Smith, riding for Excelsior, was runner-up and Woods German DKW team-mate Geiss was 3rd—if Woods' Deek had lasted a few miles longer... Results: Senior: 1, Jimmie Guthrie (Norton), 85.8mph; 2, Stanley Woods (Velocette); 3, Freddie Frith (Norton); 4, John H White (Norton); 5, Noel Pope (Norton); 6, C Goldberg (Velocette); 7, WT Tiffen Jnr (Velocette); 8, Jock West (Vincent-HRD); 9, JC Galway (Norton); 10, Bill Beevers (Norton). Junior: 1, Freddie Frith (Norton) 80.14mph; 2, John H White (Norton); 3, Ted Mellors (Velocette); 4, Ernie Thomas (Velocette); 5, Jimmie Guthrie (Norton); 6, Oskar Steinbach (NSU); 7, Heiner Fleischmann (NSU); 8 D Hall (Norton); 9, Harold Daniell (AJS); 10, George Rowley (AJS). Lightweight: 1, Bob Foster (New Imperial) 74.28mph; 2, HG Tyrell Smith (Excelsior); 3, Arthur Geiss (DKW); 4, DS Fairweather (Cotton); 5, Charlie Manders (Excelsior); 6, EW Corfield (Excelsior); 7, Harold Hartley (Rudge); 8, Svend Aage Sørensen (Excelsior); 9, HC Lamacraft (Excelsior); 10, JC Galway (Excelsior). Competitors came from Belgium, Denmark, France, Germany, Spain, Sweden, the USA, New Zealand and South Africa.



Bob Foster regained the Lightweight TT for Britain. (Right) Freddie Frith won his first TT.

"I WONDER HOW MANY people watching this year's Lightweight TT realised that but for Snaefell the DKW would probably have won. This is only a speculation, but we all know that the DKW is practically invincible for sheer speed in 250cc events on the fiat Continental courses, where it usually scores a non-stop win. In the Island it fell far short of achieving even one 'non-stop' with three entries; and, if I am correctly informed, the main reason for stops was plugs. The probable cause of this unparalleled plug trouble is to be sought in the high temperatures generated by racing up a high mountain, with a minimum head draught and high rpm, on indirect gears. The No 8 hats must decide whether the technical value of a mountain section in a road race (plus the concomitant stresses) is a first-class asset or not. As we all know, there is a movement afoot to establish a new, shorter, and flatter course. If that movement succeeds, we shall have a tough job to defeat the DKW in 1937. 'Died on the Mountain' must be its epitaph for last TT week."—Ixion

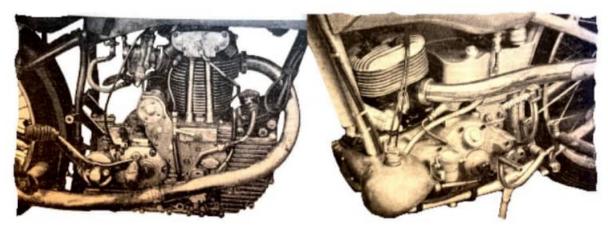


On their natural hunting grounds the Deeks were all but unbeatable. This example, ridden by Karl Manfeld, is followed by Otto Steinach on an NSU. Steinach rode for DKW in the Lightweight TT but, like his team-mate Stanley Woods, DNF. This encounter was on the Schleizer Dreieck (Triangle of Schleiz) which was Germany's first road circuit; bikes first raced there in 1923.

"HITHERTO there has been some competition for the honour of being ranked as an ACU steward in the Island. Stewards. are big pots. They wear gorgeous brassards. They have the entrée everywhere. They get the first low-down on everything. But 1936 I was an unlucky year for them. Having made that original bloomer of excluding Guthrie, they wriggled and wobbled down a host of logical lanes, found it quite impossible to straighten out the mess resulting from too hasty reliance on imperfect information. And wasn't fate unkind to them on the Wednesday? Mountain swathed in impenetrable mist at noon. Mountain bathed in glittering sunshine at 2pm. In 1937, I imagine they will have to bribe men to act as stewards, for this year's issue hardly dared enter a bar by the end of the week, such roastings awaited them."—Ixion

"WOULD YOU PURCHASE A TT machine to-morrow if you could prevail on your pet firm to sell you one, and if you had the necessary dibs? Loud, envious, enthusiastic affirmative chorus of answers, I suppose. No doubt we all would. But should we get our money's full worth? Where could we unleash its 110mph (?) more than perhaps once a summer? What should we have to pay for spares if we broke one of its special light alloy bits? How long might we have to await delivery of said spare? Apart from probably uncanny road-holding, would it be so very much better than a standard roadster at roadster speeds? How much should we drop when selling-time came? The sane answer probably is that we should be quite wise to buy the machine on condition that we intended to do some speed competition work, but that if we are mere fast tourists we might actually be better served with a standard sports model."—Ixion

"NOT FOR YEARS HAVE I heard the manufacturers in the Island for the races talk so comfortably. The long depression had set some of them wondering whether motor cycling had in part lost its appeal for British youth. Now that a wee boom is beginning to mutter in all-round trade, they find that orders are rising fast. It is clear that the motor cycle is as popular as ever, but that financial stringency forbade many an enthusiast to invest. Did I pat 'em on the back? Not me! I said, 'For five years you have refused to produce new models because you couldn't afford it. Now that you are once more making money you will say it isn't necessary to produce novelties—you can sell what you've got. That's how an industry gets groovy.' One maker got quite waxy with me. 'Why,' he ejaculated indignantly, 'I list 14 models for 1936.' 'True,' I replied, 'and not one of 'em shows any radical alteration from 1930.' He reflected, grinned, and began talking Fours. Within the next two years the trade as a whole will have a golden opportunity to launch out into novelty."—Ixion



"The engine-gear unit of the New Imperial that gained first place in the Lightweight Race. In TT trim a compression ratio of 10.5 to 1 and a top gear of 5.8 to 1 are employed. A noteworthy point is that the engine runs backwards." (Right) "With one exception the DKWs were the only machines in the Races with unit construction and gear primary drive. This photograph shows the 'works department' of the machine with which A Geiss gained third place in the lightweight TT."

"NATURALLY INFORMATION RE THE 'also rans' in the Senior TT is bound to be meagre, with the epic Guthrie-Woods fight for supremacy taking place. (Hats off to both!) From receiving Ebby's 'Go' to my retirement, an increasingly troublesome oil misfire spoiled the twin New Imperial's chances of really moving. (Last year's engine and 'heavy' tanks were used, incidentally!) The alloy brake shoes in the rear hub 'fatigue fractured' and collapsed early in the fourth lap! Again, on the fourth and fifth laps, four plug stops were made. (Don't we have fun!) Mysterious and sudden periods of seizing now became apparent, culminating in. a locked rear wheel at Glen Helen on the last lap. The chain jumped the sprockets but did not break. And in fairness to Messrs. Hans Renold, Ltd, I should like to say that chains were not the cause of my retirement in the Senior. The rear hub, bearings and remnants of the brake plate were fused together! And as the wheel

was immovable, I retired. Lightweight Day I distinguished myself by only reaching Greeba on the first lap before I was forced to change a burnt-out plug. My rev counter had shown me 500rpm down in third, up from Union Mills (plus nasty hot 'tinkling' noises from the 'urge' dept!) I fitted another plug and got cracking as Arthur Geiss came into view. We did battle, I played on the air-control with a wary eye on the re. counter, Arthur stealing a look every mile to see if he was 'shaking' me. He 'plugged' on the Mountain on the second lap. That was the last chuckle I got. Fifty yards later the 'Imp' expired for good and all at the Bungalow bend. So, dear friends, 'thatter was thatter'! 'Ginger' Wood, Birmingham.

"AFTER GOING TO SEE last year's Senior TT and having to return owing to its postponement, I wrote to you and said that I should never go again—and at the time I meant it. I have just returned from seeing the Lightweight and Senior Races, and the inconveniences on the boat and the absolutely unnecessary postponement of the Lightweight are enough to make anyone say the same again—that is, if there were to be another real TT. With two friends and their Norton outfit I caught the 1am boat on Wednesday morning from Liverpool. On arrival at about 6am we found no means available to get the outfit off the boat. RAC officials and ship's officers alike turned a deaf ear to us, and we could hardly manhandle our outfit up about 30 stone steps, as the solo owners bad to do, unaided by the seamen, [The RAC guides are not allowed to handle vehicles.—Ed.] When we eventually got the machine off at about 8am with ramps obtained from the pier we found the RAC men gone and had to push to the nearest garage On Wednesday morning we were on the Mountain near the Bungalow and at 12.30pm visibility was over 100 yards. By 1pm the mist had cleared completely. Everyone, including marshals, was astonished at the postponement to the following day, and one rider expressed his opinion in no uncertain terms. To crown this conics the astonishing decision of the ACU concerning Guthrie in the Junior. How they can possibly justify their inclusion of him in the awards I would like to know. Th rules definitely state that anyone receiving outside assistance will he disqualified. The rider must be capable of starting his machine unaided, and to state that Guthrie did not receive assistance on the course is begging the point. One cannot help feeling sorry for Guthrie, but what about Thomas on the Velocette? It seems to me that the Velocette directors would be far more justified in appealing for the time taken to examine his machine plus a reasonable allowance for the stop and restart to be deducted from his time. After all he received no outside assistance and these one-sided decisions must leave s nasty taste in the competitors' mouths, particularly after the Guzzi disqualification from second place in 1926 for using a different make of plug. Alter having let off steam, may I say that I really enjoyed the races, particularly the magnificent riding of Woods and Geiss. Woods in the Senior on a slower machine than the Nortons was marvellous. Also, may I congratulate your paper on the splendid reports it published, but most of all for its

unprejudiced opinions?

AJ Mohr, Streetly, Staffs.

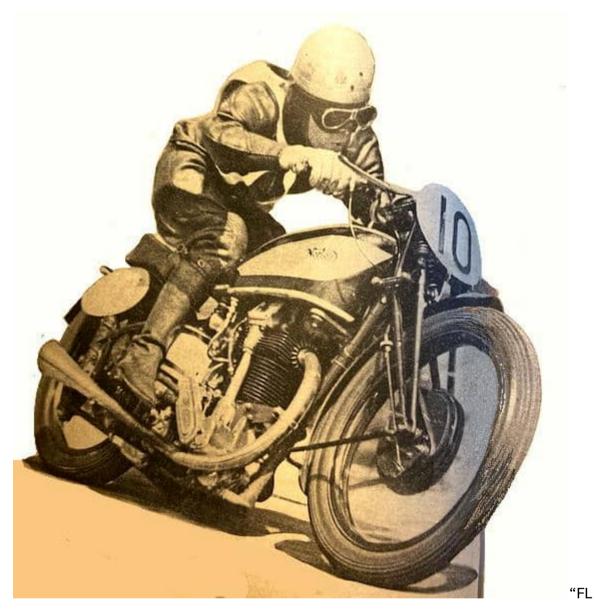
FORGET *THE WILD ONES*. Forget *Easy Rider*. The best motor cycle film of them all was *No Limit*, starring motorcycling ukulele maestro George Formby who was far cooler than Brando or Fonda. Brando was looking for something to rebel against on his Triumph Thunderbird. Fonda was looking for America on his Harley panhead chop. Our George was looking for a fiver to get himself and his bike, the Shuttleworth Snap, to the TT. He falls off the *Mona's Queen*, sets a lap record because of a jammed throttle, pushes his bike over a cliff, wins a works ride, punches a bullying competitor on the snoot, pushes his bike over the line to win the race, wins the girl and wins a Sprocket dealership. The film features real TT action and an unforgettable song. All together now: "La la la la la la going to the Teeee Teeee ra-ces!" If you still need convincing you can see highlights of the film at <a href="http://www.youtube.com/watch?v=ukCc3c6RVo4">http://www.youtube.com/watch?v=ukCc3c6RVo4</a> and sing along with George at youtube.com/watch?v=eayllywNxUw./ Eeeee! Turned out nice again!



The Shuttleworth Snap, a modified 'Rainbow' (aka 350 AJS)—George (Shuttleworth/Formby) wins the TT on a works Sprocket (aka 350 Ariel). His statue can be seen at Ridgeway Street in Douglas.

"FRITH IS GLORIOUSLY DIFFIDENT about saying anything concerning riding methods, so I turned to the question of the parts of the TT course he likes best. 'Kirkmichael to Ramsey,' he replied. 'Always have done. You seem to tear through there, going so much quicker.' As he said this I went with him in spirit around the course—those glorious sweeps, much of the going either under or beside trees: just imagine it all on a really fast mount! His pet aversion is Quarter Bridge, with its more-than-a-right-angle turn, approached downhill. It feels like ten miles an hour, and there is an adverse camber on the far side; I rather think that his wholesome dislike of the corner is shared by others! 'How much gripping of the bars do you do?' I asked. He replied that it is only on the straight bits of the course that his hands are merely resting on the handlebars; for the

rest they are 'gripping', and on S-bends one hand is pushing—first one, of course, and then the other; the riding position is such, remember, that the rider's arms are nearly straight. Frith marvels at the Norton riding position, and the way Joe Craig has got it dead right; it suits every member of the Norton team."—**Torrens**.

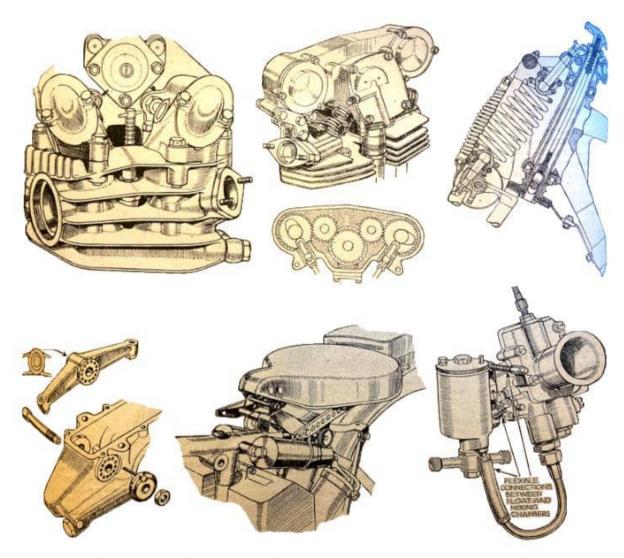


Frith in action during the Junior TT, which he won at 80.14mph."

'UBIQUE', THE BLUE 'UN'S de facto technical editor, had clearly spent a lot of time in the paddock: "There have been many changes in design which are of technical interest; some have been highly successful, some have been less so, but all should be chronicled...The first point of interest is the adoption of spring frames by the racing Nortons and Velocettes, in addition to the Vincent-HRD design, which remains substantially unchanged. The Norton frame consists of a pair of spring-loaded, light-alloy pistons, one on each side of the rear frame, coupled by a long and very stiff axle. The design is extremely simple and robust, and although-small changes in the length between chain centres are inevitable (actually the maximum change in centres is  $\frac{5}{64}$ in),

they are of minor importance. I have heard criticism on the score of the stresses imposed on the spindle, but these may be discountenanced, since the point is so obvious that the manufacturers would be the first to ensure adequate strength and stiffness. The Velocette rear suspension is entirely different, and there are no springs whatever included in the design. The chain stays, pivoted at the front end, consist of very large diameter tubes tapering rearwards and splined in front to a large-diameter cross-member. The weight is taken by cylinders of air pumped to a pre-determined pressure, and the action is controlled damped by a flow of oil (contained in lower cylinders into which the air chambers telescope) through small controlling jets or orifices. The device, in fact, resembles an aircraft landing gear, and it is extremely efficient. It is obvious that the air chambers can be pumped up to suit the weight of the rider. New Imperials did not use their spring frame, purely because they had insufficient time to prepare a machine for the race. Next in order of interest comes the question of superchargers. Vincent-HRDs have carried out a lot of experimental work, but decided before the race that still further experiment was needed and raced without compressors. This does not necessarily mean that they have abandoned the idea altogether, but it is a curious feature of the supercharger—at least as regards its application to this particular engine—that the machine appears to run equally well with a wide range of mixtures and ignition settings. On the other hand, it is vital that the mixture should not be so lean as to cause overheating, nor so rich as to cause excessive fuel consumption. As regards the blown four-cylinder AJS, the pressure was reduced before the race, and it is not unlikely that further experiments will produce much better results. At the moment it would appear that more data is required before a supercharged TT winner makes its appearance. The case of the DKW two-stroke, with its piston-type compressor, is somewhat different. The makers have a wide experience of the type, which was designed in conjunction with the engine, and they had already registered many success.. It remained only to see if a compromise could be reached between sheer power output and reliability sufficient to complete the course. In this they are helped considerably by water-cooling and—this year—by ribbed aluminium head jackets. In engine design there has been more change than meets the eye. Compression ratios have gone up with a bump, and, since a designer is always likely to employ the highest ratio possible consistent with reliability, it is clear that changes must have taken place internally to permit of the increase. More than ever before there was a tendency for designers to withhold particulars of the compression ratio in use, but when I state that ratios of up to 9 to 1 on Senior and over 10 to 1 on Lightweight machines were tried, and tried successfully, on petrol-benzole mixtures, it will be realised that there must have been considerable advance in cooling to enable such ratios to be used The vital point lies in the cylinder head, and more particularly in the neighbourhood of the exhaust valve. New methods of head construction, improved materials, increased fin area, careful port design, and other less obvious devices were employed with success. High-conductivity alloys are the rule rather than the exception for cylinder heads, and

these range from aluminium-bronze heads, such as those on certain Velocettes, JAPs and Excelsiors, through composite aluminium-bronze and light-alloy heads, such as the Norton and New Imperial, to aluminium-alloy heads with inserted valve seats—as on Velocettes and AJSs. In some cases the inlet seats were of bronze."



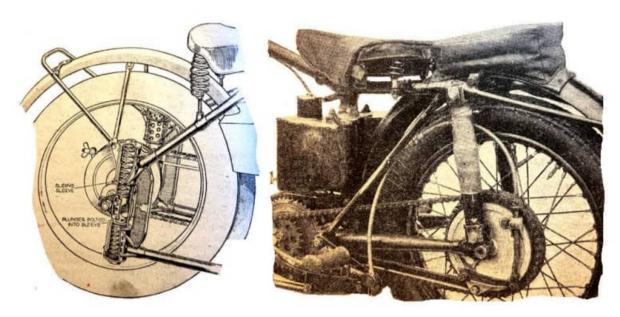
Top row L-R: "Unusual points of the cylinder head of the four-port TT Excelsior are the finning around the ports and the position of the spark plug. The valve gear of the latest 348cc TT Velocette is distinctly novel. Twin overhead camshafts are employed, the two shafts being driven from the bevel shaft by a train of spur wheels. With the object of relieving the fork spring of undue stress, the Norton front forks incorporate a cup-and-ball arrangement at the top and bottom ends of the spring." Bottom row L-R: "Vernier adjustment is provided for the rockers of the four-cylinder TT AJS. The new form of saddle mounting employed on the TT Vincent-HRDs. On the TT Nortons the Bowden carburetters had their float chambers flexibly mounted."

"IT LOOKS AS IF TECHNICAL developments have butted up against a terminus, so far as existing designs of ohc single-cylinder engines are concerned. It is true we did not get

one day in the three which was ideal for record breaking. The stars they want dry roads, no wind, perfect visibility, no sun, and no flies in order to scrape the last split second off the course. These pluperfect conditions were not offered this year, worse luck. But the fact is that machines were only faster than in 1935 by the very tiniest fraction. If there is an exception to this it can only be sought in the theory that Guthrie's never drove any faster than he was compelled to drive, and that in the Senior he always had a scrap of throttle up his sleeve. I doubt it. Guthrie won by 18 seconds. If Woods had been mechanically able to ride his last lap in the same time as his sixth lap, Guthrie would have won by two seconds. Guthrie does not consciously run matters as fine as that. Woods' engine misfired for a long spell along the back of the Island. Guthrie's last lap was a smasher. On the clock it took him 26min 22sec, but from that we have to deduct (a) 15sec stationary at his pit while he sloshed in a few pints of juice; (b) slowing for his pit; (c)re-starting; (d) accelerating from rest up to maximum for Bray Hill. Total loss, at least half a minute. Deduction: Guthrie did his last lap in under 26min, ie, at an average of well over 87mph. Why did he not let out an 87 or 88mph lap earlier in the race? Because he dared not. Why didn't he dare? Either because he did not want to smash himself to bits or because he was afraid of bursting his engine. Machines were only fractionally faster than in 1935, or, allowing for road improvements and spring frames, no faster!"

"IT IS NOT A PICCADILLY CIRCUS machine, you know.' With these parting words from Joe Craig, I walked over to the spare machine—the fourth of the four new 500cc springframe Nortons. Alec Bennett, who had been trying it, handed it over and told me which way the gear lever works. He also told me a lot more, for he was fairly bubbling over with enthusiasm. The point of my run was not to try any funny business, to endeavour to emulate a TT star, and that sort of thing, but to learn what the spring frame is like in ordinary hands. Brief though the trip was I learned a lot. That spring frame adds immeasurably to the machine. No longer is the rider thrown about; the machine sits the road almost like the tarmac that surfaces it, and, in the words of Jimmy Guthrie, on corners you can pick any line you like. It will go exactly where you want it to go. As 1 have said several times before, a good spring frame is one of the greatest safety factors imaginable. Some people stress the comfort afforded by a spring frame. I look upon this as of secondary importance. The great point is that first-class rear-wheel springing spells safety by improving the road-holding and by enabling the rider to steer to a millimetre. Half the so-called steering troubles that are experienced result solely from the rider being thrown about; it is he who causes the machine to do strange tricks, generally through thrusting and heaving on the bars. The Norton steering is superb there is no other word for it. The rider can concentrate on riding. For myself, I learnt that the road-holding of the spring-frame job is cent per cent. better than that of the racing Norton I rode a couple of years ago. Because of this magnificent road-holding, the steering and braking are both greatly superior. Really there is no comparison, and now

with the spring frame the rider has a really comfortable ride. Witness how Freddy Frith after finishing in the Junior handed his machine to a marshal and ran—yes, *ran* up the road to the Paddock!—**Torrens**.



"A sectioned drawing, showing one of the spring boxes of the Norton Spring frame. Although massive in appearance, the device is in fact very light in weight." (Right) "No springs are included in the Velocette rear suspension system. The weight is taken by cylinders of compressed air, while the action is controlled by oil flowing through small jets. Note the large diameter tapering tubes that form the chain stays."

VELOCETTE'S RETURN TO the 500cc sector with the ohv MSS was clearly worth waiting for. *The Motor Cycle's* roadtester reported: "Throughout there is evidence of good workmanship and accurate assembly...it would be difficult to find a more charming motor cycle. Excellent engine balance and a silky transmission rendering the machine equally pleasing for town riding or the open road. At speeds up to 30mph the Velocette was markedly caner as regards its exhaust, and bearing this point in mind the mechanical silence was exemplary. In spite of the fact that the top gear ratio is 4.4 to 1 it was unnecessary to change gear continually. There is something fascinating about a machine that will pull a high gear successfully. High averages can be accomplished without fuss or noise so that the journey becomes less fatiguing. It will tour all day at 60mph. The steering was faultless. Hands off riding at 70mph...was automatic. As regards fuel consumption the machine was good: a gallon of fuel being enough for 88 miles...Oil consumption was negligible. The prop stand was a boon—the finishing touch to a very fine machine."

...AND HERE'S AN EXCERPT from the Blue 'Un's test of the 600cc Panther M100: "...a most imposing machine...the Burgess silencing system was so effective...the mechanical silence of the engine too was an admirable feature...road-holding at all speeds was excellent...cornering was excellent, and under greasy conditions the

steering was such as the impart every confidence...the engine kept perfectly oiltight...under give and take road conditions the petrol consumption worked out at 103.2mpg." Panther claimed a top speed of 80-85mph solo or 65-70mph with a chair.

"LAST WEEK-END, IN THE FICM Grand Prix of Europe, held in Saxony, British machines swept the board in the three major classes. J Guthrie (490cc Norton) and JH White, on a similar machine, were first and third respectively in the 500cc race, while FL Frith (348cc Norton) won the 350cc race, with EA Mellors (348cc Velocette) and ER Thomas (348cc Velocette) respectively fourth and fifth. The 250cc event was won by HG Tyrell Smith (248cc Excelsior), with a German rider, B Port third on a 249cc Rudge. No one succeeded in finishing in the 175cc class [Eric Fernihough was leading four German riders on MMs when his Excelsior-JAP dropped a valve—Ed]. The race attracted a huge crowd—over 240,000 people paid for admission, and they had come from all parts of Germany, many of them arriving the evening before with the object of sleeping near a vantage point on the course. Throughout the night Army searchlights from a hill-top swept the ground looking for people trying to avoid theadmission fee. Racing was due to start at 9am, and as there were three separate races it was going to be a long day. The triangular five-mile course, situated outside the picturesque Saxon village of Hohenstein-Ernstthal, near Chemnitz, was lined, inside and out, three, four and five deep with spectators. It a difficult course, full of intricate bends (with IOM-type warning signs) and steep gradients. The pits and chief stands are situated on the southernmost leg of the course. Above the starting grid is a 'traffic' light, which shows red, orange or green according to the requirements of the starter. "Here's the Blue 'Un's blow-by-blow account of the main event: "It is nearly 3.45pm before the 500cc class is despatched. Through nearly 200 loudspeakers around the course, a deep, Teutonic voice announces 'Achtung, achtung! Rotes licht! Noch eine minute bis zum start!' (Attention! The light is at red!



Tyrell Smith (92) is about to pass Italian ace Pigornini on his way to winning the Lightweight race.

Only one minute until the start!) A few seconds later the light is at yellow, and then simultaneously with the nerve-shattering explosion of a maroon the green light appears and they're off. The rain has ceased, but it is very dull and overcast. In spite of the weather the vast crowd, which has patiently stood all round the course since 8am and possibly earlier, is all agog to see the riders off on this the most important event of the day. It is going to be a terrific race: The Guzzis are known to be exceptionally fast. The BMWs are possibly a shade faster, while the senior DKWs, judged on their practice form, are something to write home about. All this is a knotty problem for the Norton camp to tackle; White and Guthrie (Nortons) are the only British riders in the race. However, at the end of the first lap, with all the riders in a bunch, the flying Scotsman is in the lead. Close behind are Steinbach (DKW), HP Müller (DKW), JH White (Norton) and Fleischmann (NSU). On the second lap the positions are unchanged, but the next sees a gradual thinning out of the field. Guthrie is clear 20 seconds ahead of Müller (DKW), who has overtaken Steinbach (DKW). White is sitting on the heels of the DKWs, obviously riding to orders. But where is Tenni and the Guzzi? At last over the loudspeakers comes the news that he has crashed beyond Hohenstein, though without serious results. Then Gall (BMW) drops out, leaving 0 Ley to carry on the name of BMW alone. Six laps later Guthrie has definitely. established a lead over Müller's DKW, while Steinbach has a grand tussle with the DKW rider for second place. Lap after lap they

fight it out; first it is Steinbach, then it is Müller, while White (Norton) holds a watching brief just behind. Fleischmann (NSU), in fifth place, struggles to keep away from the ever-pressing Ley (BMW). Half distance sees Guthrie come in for a pit stop, while White proceeds to overtake the DKWs and lie second. Then the two DKWs come in. By an unfortunate accident Steinbach gets the full force of the boiling -water from his radiator in his face and all over his leathers. With the consequent pain he drops his machine and nearly knocks Müller over at the same time while fuel goes gushing over both of them. As a result their pit stops, instead of taking 30 seconds, last for nearly a minute and a half. This slip rather spoils the excitement of the race, for Guthrie and White are well ahead. Ley (BMW) comes in for his stop and likewise makes it rather a long one; he appears to change a plug. The delay lets Fleischmann into fifth place. The order of the leaders remains unchanged until the 32nd lap, when Mansfeld (DKW) comes into the picture, displacing Fleischmann from fifth place. Meanwhile Müller (DKW) has been creeping up to White (Norton) and by the 37th lap—only two more to go—he is just eight seconds behind White, the latter having come off on the bend in Hohenstein. How tho crowd loves the scrap! Müller was actually level with White as they passed the stands everyone went delirious with excitement. The end of the last lap sees Guthrie (Norton) cheered to the echo—an easy winner. But actually the crowd is much more interested in who is going to come out on top in the White-Müller duel. At last these two can be heard, then seen swooping down the dip to the last bend. White is ten feet in front! The excitement is terrific, with the crowd yelling itself hoarse. Then comes the real climax. White goes wide and strikes the hay barrier on the last corner, while Müller nips round on the inside and is away before White can get going again. More amazing still. Muller on his last lap has broken the record for the course, at 82.63mph. Just as there was a battle for second place, so is there another for the fourth position, between the DKW riders, Mansfeld and Steinbach. It looks like a victory for the latter, but on the last lap Steinbach falls and lets H Fleischmann (NSU) and Sunnqvist (Husqvarna) into fifth and sixth positions. Once again it has been a British victory, and once more the crowd stands motionless with arms upraised for the British National Anthem—and how they cheered when Guthrie received Herr Adolf Hitler's prize and a special message of congratulation."



"Vast German crowds spent nearly ten hours watching the 1936 FICM Grand Prix of Europe...Here is a glimpse of FJ Binder (348cc Velocette) leading R Meier (348cc Norton), R Loyer (348cc Velocette) and—on the white line—F Vaasen (348cc Norton) round the sharp, steep bend in front of the scoreboards."

And here's Ixion's penn'orth: "Last Sunday saw the first performance of the 'Continental circus'. This term 'Continental circus' may seem strange to some; it is one used by roadracing enthusiasts to denote the annual tour of the Continental races that as a rule follows immediately after the TT. Actually this year one of the big events, the Swiss Grand Prix, was held before the Isle of Man Races. However, last Sunday there was the German Grand Prix or Grand Prix of Europe, as it is called this year, next Saturday the Dutch TT will be held and on Sunday, July 26th, there is the Belgian Grand Prix. The handful of British representatives go from one race to the next, renewing their TT battles and endeavouring to display their own prowess and that of British machines. The first fruits have fallen to Britain with a vengeance. In the Grand Prix of Europe last Sunday, held on German soil against the pick of Germany and other Continental nations, British riders of British machines won three major races. Norton, handled by Guthrie and Frith, won the 500 and 350cc races respectively, thus these two brilliant riders with their superb spring-frame machines repeated their Isle of Man successes. Guthrie, incidentally, won at the record speed of over 80mph. The 250cc race was won by Tyrell Smith with the new four-valve ohc Excelsior. Thus, once again, has the skill of British riders and the excellence of their mounts been demonstrated to the world."

"A MOTORIST FINED 10s at Bristol for failing to stop at a 'Halt' sign declares that he would go to prison for six days rather than pay."

"TRAFFIC WAS HELD UP in a street in the West End of London recently when a large poisonous tarantula spider escaped from a crate of bananas."

"IT HAS BEEN SUGGESTED in Parliament that large bomb-proof underground parking places should be built in large cities, thus also providing sanctuary to civilians in the event of war."

"A NUMBER OF 250cc motor cycle side-car outfits adapted to ran either on the road or on rails are now being used by inspectors employed by the Paris, Lyons and Mediterranean Railway Company."

BRITAIN PRODUCED SOME 11,000,000 gallons of Benzole.

"A PEDESTRIAN WHO twice jumped in front of a motorist's car, the second time also striking the motorist's face, was sentenced to one month's hard labour at Castle Hedingham (Essex). The pedestrian was summoned by the RAC."

"AT THE ANNUAL GENERAL meeting of the British Granite Whinstone Federation in North Wales, it was suggested that bigger Road Fund grants should be given to highway authorities who lay down non-skid roads. May we suggest that no grants at all be given to authorities who do not lay non-skid roads?"



"Clouds over Snowdonia. A view of the famous mountains in North Wales seen from near Borth-y-Gest."

"THE CONSTRUCTION OF a network of 120-150ft wide main trunk highways, dead straight, was suggested by David Edwards, Brighton's Borough Engineer and Surveyor, at a conference last week. Vehicles would attain 100mph, perhaps, for pedestrians would be permitted to cross only at bridges or subways."

"I THINK THE ACU have made a big mistake in increasing the mileage for the road test part of the National Rally. I have taken part in the last two events, and thoroughly enjoyed them, but I will not be able to do so this year because of the long mileage—it would more than double the expense through having to put up overnight, and my 'fairy' would find it too uncomfortable to do 500 miles in little over a day. We both very much regret this, as we look forward to the Rally very much.

## A Patterson, Liverpool."

FOUR THOUSAND FIVE HUNDRED miles of main roads are to be taken over by the Government, according to an important announcement made by the Minister of Transport earlier this week. The highways concerned comprise the more important trunk roads, used largely by through traffic. Thus we have the first step towards the nationalisation of the roads—a policy we have urged consistently over the years. The roads are a national asset. The present system whereby there are no fewer than 1,400 road authorities is patently out of date, uneconomical and, from the motorist's point of view, totally unsatisfactory. All main roads should come under the control of one central body. Then, and only then, shall we have roads of uniform safety—a road system designed as a whole, instead of piecemeal, and surfaces that are standardised and skidproof. A start is being made, though 4.500 miles is but a fortieth of the total length of British roads and but a sixth even of the main highways. We sincerely hope that the Government will press onward and bring all main roads under State control—those in towns and cities included. It is the urban roads that present the greatest danger. It is on these roads that the most accidents occur, and it is these roads that have the most dangerous surfaces."

"BRITISH RIDERS AGAIN upheld the the prestige of their country by winning the two larger classes of the Belgian Grand Prix, which was held over the Floreffe circuit in the South-East of Belgium. J Guthrie and JH White (Nortons) were first and second respectively in the 500cc class, while in the 350cc race EA Mellors (348cc Velocette) won comfortably from R Renier (FN). This is the first time that the course at Floreffe has been used for an international event. It is approximately 10½ miles long and roughly triangular in shape, consisting of one short leg and two long stretches to the apex at Floreffe."



"EA Mellors (Velocette) receives the chequered flag at the finish of the 350cc race, which he won at an average speed of 76.86mph."

"THOSE hundreds of motorists who at one time or . another have been 'gonged' for exceeding the 30mph speed limit—and consequently relieved of a portion of their hard-earned cash—will no doubt learn with glee that a private motorist had the temerity to charge the driver of a police patrol car with a similar offence. The police—in the way the police have—promptly retaliated by issuing a summons against the car owner for exceeding the limit while following them! But they reckoned without the AA solicitor, who successfully contended that whereas in the case of the police car there was no excuse for excessive speed, the defendant was within his rights in exceeding the limit, since his car was really being used for 'police purposes' within the meaning of the Traffic Act! Needless to say, the police authorities are appealing against the decision to a higher court. All motorists will await the result with interest, and in the meantime they can amuse themselves by trying to find the not-too-difficult moral of this little story."—

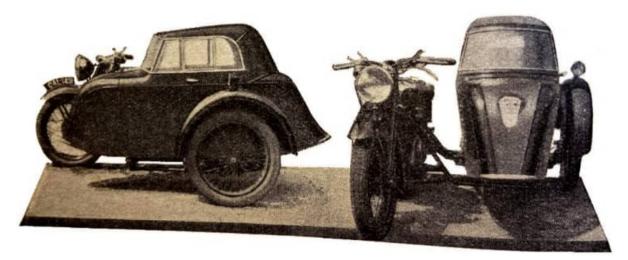
## **Ixion**

"VISITED BEXHILL ON MY HOLIDAY, and was delighted to hit a burg where originality replaces the usual demure kow-towing to central road authorities. Only encountered one set of robot traffic lamps. Did not notice a single pedestrian crossing. Found an absolute minimum of those too-popular warnings and notices which are mounted on the kerbs of wide roads, and function chiefly in distracting drivers' attention from the obstacles in the roadway. This town contains several traffic vortices which are capable of provoking blunders by road users. In every case the necessary warnings and instructions are placed in the proper location, ie, in or on the carriageway., Sometimes they assume the fairly common form 'Dead Slow' painted in enormous letters on the actual road surface. Sometimes the wide spaces are split up into obvious lanes by small islands with big bright boards bearing the words, 'Keep Left', etc. It was a very pleasant change to ride with my eyes focused on buses, cyclists, old ladies and other obstacles, instead of developing the usual appalling squint by aiming one eye at the

actual traffic and the other 45° left or right for kerb notices. If Mr Hore-Belisha survives much longer we shall develop a race of Britons with a permanent 45° squint, and feminine beauty will evaporate off these islands."—**Ixion** 

"ON A RECENT WEEK-end I met eight motor cycles exhibiting L plaques and carrying pillion passengers. Some of these fair pillionistes may not have been so brave as appearances indicated, for some 'L' drivers have been on the road a very long time, being unable to secure their test appointments. But at least three of these 'L' drivers struck me as very ellish indeed. So ellish that I was glad to read Mr Hore-Belisha's promise that motor cycle learners would shortly be forbidden to drive with an occupied pillion." —Ixion

"LAST SUNDAY THE WATSONIAN Sidecar Company held another of its annual rallies for Sidecarrists—at Maxstoke Castle, Warwickshire. And the number and variety of sidecar outfits present were-evidence of the ever-increasing popularity of the event. Cups and prizes were awarded to the winners of the various classes. One of the most interesting classes was that for home-built sidecars. In this category the first prize was won easily by EH Lock, who had an enclosed sidecar on an Enfield machine. It was a beautifully made job and had taken ten months to build. A notable winner was M Harrington, who had covered 636 miles in order to he present. He was followed closely by C Harris, who had ridden 612 miles—two very stout efforts."



"Two views of the home-built sidecar body with which Mr EH Lock won the Munday Cup at the recent Watsonian Rally. The body is made of three-ply on a light ash framework and is exceptionally well equipped." [Mundays of Brixton were still dealing in sidecars 40 years later because I bought a sidecar fitting from them—Ed.]

"THE 990cc AJS AND SIDECAR is an outfit that should appeal to both the potterer and the high-speed tourist. To the potterer its fascination lies in its extreme flexibility, while for fast work it is effortless and commendably quiet. The machine tested was the Export model with a large touring sidecar. It is a luxurious outfit and one that has been designed to afford both driver and passenger a high degree of comfort. Long, American-

type handle-bars, footboards and a pan-type saddle with very supple springs give a comfortable driving position for a man of normal stature, and although very little weight is carried on the driver's feet, no saddle soreness was felt even after long strenuous mileages. In keeping with its luxurious character, the outfit is effortless to drive and handle. The long handlebars make the steering exceptionally light so that very little effort is required even when negotiating acute corners. The steering is positive at high speeds and only a small amount of damping was required. On rough surfaces the outfit handled well. The forks have a long and smooth action and do not bottom even over deep pot-holes. No praise can be too high for the docility and pulling powers of the engine. Starting was always very easy and when the engine was warm it was possible for the driver to start it without rising out of the saddle. Slow running was positive and with the ignition retarded the idling speed was very slow. Under all conditions the machine was pleasantly silent, both as regards exhaust and mechanical noise. Even at very large throttle openings the exhaust note did not rise above a subdued burble, while at low speeds it was practically inaudible. Similarly, the engine is quiet mechanically, and at most times it was possible to hear the whirr of the rear chain. Piston slap and tappet clatter were both noticeably absent. The most striking characteristic of the engine is its power at low speeds. With the ignition retarded it was possible to drive at approximately 10mph in top gear, and from this speed the outfit would accelerate away smoothly and without snatch. Once clear of the traffic the need for a gear box almost disappears. Long gradients were easily breasted in top gear and on a run from London to Dorset the gear box was used only in traffic. No 1 petrol was employed throughout the test and no pinking occurred although the engine was purposely maltreated. Acceleration in the intermediate gears was good. With passenger and an 11-stone driver the AJS would accelerate from 20 to 45mph in less than 9 seconds in third gear (6.1 to 1). In top (4.9 to 1) 12. seconds were required. Maximum speeds in these gears were approximately 53 and 60mph respectively. These figures do not, however, give a true impression of the engine's performance, for speeds up to 50mph could be held indefinitely. Apart from a slight whine in third gear the gear box was in keeping, with the silence of the engine. .A foot clutch and left-hand gear change are fitted to the Export model and these are very pleasant to use.



Changes are made without the driver removing the 'throttle-hand' from the handlebar, and no difficulty was experienced in making a smooth get-away with the foot clutch even when the driver was wearing waders. Slight criticism could be levelled at the position of the clutch pedal, which is so placed that the driver's foot is inclined to foul the front sidecar connections. The rearbrake pedal is mounted on the right-hand side of the machine, and the front brake is operated by a normal-type lever on the right handlebar. Both brakes were smooth in action. The front one was very powerful, but the rear one would lock if applied carelessly, and in very wet weather had a tendency to lose its efficiency. Both controls arc well placed. Several long runs were made over wet roads, but at the conclusion of the test the outfit was exceptionally clean. Both mudguards on the machine are very wide and heavily valanced and effectively prevent road dirt being thrown on to the driver. The engine kept very free from oil externally, No leakage occurred from either the crank case or the timing case, but there was a slight seeping of oil from the tell-tale lead to the dash-board in the tank. Over a prolonged run oil consumption worked out at 2,000mpg, while at a maintained speed of 35mph the petrol consumption was 50.6mpg. Various passengers were carried in the sidecar, which is roomy and comfortable. The windscreen and side curtains effectively prevent side draught. The large rear locker is upholstered as an additional seat. The AJS is fully equipped as a sidecar machine and the equipment is luxurious. The dip-switch and horn button are neatly positioned on the very 'clean' handlebars. It was found that the main head lamp beans, although wide, did not give sufficient illumination straight ahead for comfortable high-speed work at night. During the test the positive lead from the battery became detached, causing the side and dim bulbs to 'blow'. Finally, mention most be made of the exceptionally neat and strong spare wheel mounting. The wheel is placed behind the driver, well out of the way but readily accessible."

"FRESH FROM THEIR VICTORIES in the Grand Prix of Europe the previous week-end, British riders and machines again covered themselves in glory last Saturday on the occasion of the Dutch TT, which was held over the Circuit van Drenthe, near Assen, in the North of Holland. Throughout the night thousands upon thousands of motor cyclists had streamed into the little town of Assen, which was suitably decorated with flags, bunting and flowers. They had come to see one of the fastest motor cycle races in Europe. Practising had produced such phenomenal times that the organisers could not credit the results of the road widening and banking of the corners as being responsible—and they were right in their doubts, for when they had the 10-miles course measured the figures showed that the improvements had shortened it by over 500 yards! The surface has been improved. Even so, when wet it becomes treacherous and almost ice-like. Still, it was going to be a day of fast—really fast—racing. The Senior race was won comfortably by J Guthrie (490cc Norton) from 0 Ley (supercharged BMW), with S 'Ginger' Wood (490cc Norton) third. Ley smashed the lap record, averaging no less than 90.71mph. In the 350cc race the Norton pair, JH White and FL Frith, were first and second respectively, while HE Newman (Velocette) finished third. The Lightweight event saw Tyrell Smith (Excelsior) come home third, behind two exceptionally fast DKWs."



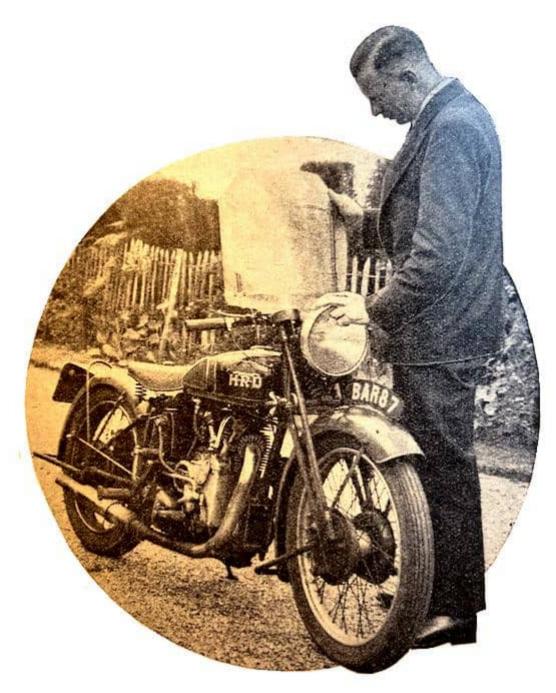


"The star's flag drops and the riders in the 350cc class heave their machines as one man. On the right can be seen the winner, JH White (No 28); to his right is the second man, FL Frith (No35)." (Right) "Towards the end of the 350 race the two Norton riders, JH White and FGL Frith, had a neck and neck duel for first place. In this picture is half a length ahead of White. at the De Haar corner on the Assen leg of the course."



"NO ONE ACTUALLY USED the words, 'You daren't do it!' Nevertheless, it was largely the feeling that I had been dared that caused me to fit the handle-bar windscreen—that and the fact that I had never ridden behind a handlebar screen in my life. Of course, small screens have been used in the TT. Freddie Dixon, I recall, used to have one. Perhaps there is more in the matter than appears to be the case. I decided that I would experiment. The Beta screen was fitted for one trip of 230 miles; it has now been in use for well over a thousand miles...within ten minutes of fitting the screen I was off on a fastish 115-mile run to see the managing director of a certain motor cycle firm. On arrival at the works I had no time for a wash and brush-up. I removed the chromiumplated filler cap from the Vincent, wiped it, and looked at my face to see whether it was clean. Except for rims caused by the chenille of my goggles it was as presentable as well, it was as nature has ordained. I glanced at the handlebar screen; it was dotted with squashed flies and traces of tar. All the same, the curved non-flam celluloid screen does not of itself keep all draught from one's face. For this to be so I gather that one needs to use, in addition, a par of legshields that more or less blend with the screen and run forwards as well as upwards from the footrests. Since I ride minus legshields I found that there was 'definitely a draught reaching my face and, therefore, I employed goggles in addition. Of course, various people have asked what happens when there is a really, strong wind blowing from one side. My answer is, 'Nothing at all.' I have had the machine in the best part of a gale—a wind which came out of side streets almost like water out of a funnel—and the steering and handling were all you could wish. I believe that Mr Beta claims the model steers better with the screen than without it in such circumstances. I am not going to say he's right, but I do know that the handling is not one atom the worse for the screen. And I know that the screen is amply rigid enough for speeds in the eighties—there is no tendency for it to collapse or anything nasty like that. No, the only

thing that dims appear to be desirable in the case of the man who bats is that the screen is no mounted that there is a fair degree of curvature; otherwise the top of the screen—the small segment that is unsupported—is liable to flap about. You hear the engine rather more with the screen in place than previously, and, strange to relate, the screen tends to affect one's ideas of speed; automatically I was travelling at higher speeds than I imagined, no doubt because the wind pressure had been removed by the screen. Yes, I agree with the man who said that a handlebar screen makes for higher averages rather than lower ones. And one day, when I was faced with a villainous hailstorm which made dozens of motor cyclists seek shelter, I carried on perfectly happily. But the greatest boon of all is the way the screen protects one's goggles from the spray thrown up by other vehicles. Definitely there is more in this screen idea than one might suppose. The proof, so far as I am concerned, is that the screen was put on for a single trip, and there it still remains, and is likely to remain for quite a time to come."



Torrens was quickly convinced of the benefits of a windscreen.

"RECENTLY A FRIEND OF Mr R McPherson, of Glenfinnan, Inverness-shire, wrote to *The Motor Cycle* to say that Mr McPherson had had no previous convictions, yet because he had over-looked renewing his licence he had been fined no less than £3 [more than £250 in 2023—Ed]. The BMCA also heard of the matter, and recently the case came before the House of Commons in the form of questions put to the Secretary of State for Scotland by Captain Strickland who, as you know, besides being an MP, is a member of the BMCA committee. Capt Strickland stated that Mr. McPherson had only over-looked the renewal of his driving licence by about two weeks and asked the Secretary of State for Scotland if he would take steps to remit the fine imposed. Sir G Collins, in reply, said

he was making enquiries. I now hear that £2 of the fine is being remitted. It seems that in these days, thanks largely to Capt Strickland, Lord Sandhurst and the BMCA, the motor cyclist who is or appears to be victimised in any way can count upon his case being investigated."—Nitor

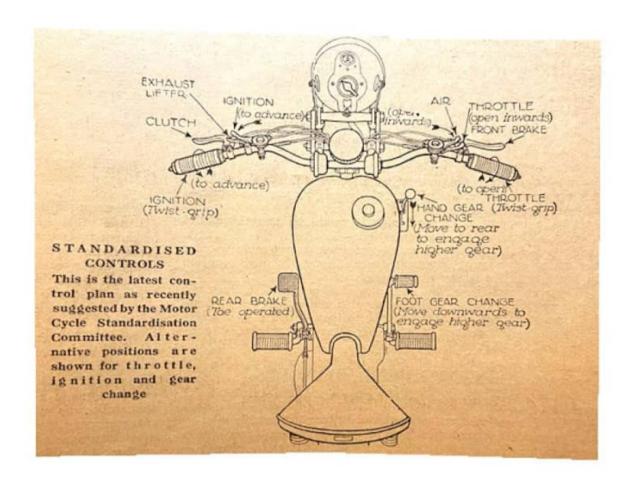
"FOUR MOTOR CYCLISTS were fined 10s each for riding 'four-up' on a motor cycle. One was driving, two were on the pillion, and a fourth was astride the driver's shoulders."

"IN AMERICA TO-DAY, if a man steps off the footpath without care he is not summoned but arrested,' said the magistrate at a Belfast court when dismissing a summons against a motorist for dangerous driving."

"CLERK AT HIGHGATE POLICE COURT to motorist: 'Do you plead guilty or not guilty to passing a police car which was travelling at 30mph?' Motorist: 'Guilty under great provocation. Both officers were having a good laugh.'."

"A MOTOR CYCLIST EMPLOYED as a Fleet Street Press photographer's 'runner' was fined £10 and disqualified for a year for ignoring a traffic policeman's signal. An appeal resulted in the fine being upheld but the year's disqualification was removed."

"I DO NOT BELIEVE that either the motor car or motor cycle trade will ever standardise vehicle controls except in the unlikely event of the Government insisting on their doing so by a certain date...On tackling a strange motor cycle close inspection was very necessary at one period to discover which way the ignition, air and throttle levers worked. The Standardisation Committee has done its work well. There is not the very faintest reason why the whole of its suggestions should not be adopted by the entire trade for 1937, with the possible exception of the gear-changing changing pedal. The Committee have in mind the type of pedal which is pushed down for up changes and hooked up for downward changes. That 'hook-up' business is not particularly convenient or efficient, and we shall probably see some better method supersede it before very long. But as long as a designer retains the 'push or hook' type of pedal the Committee are right in advising that the 'push' motion be reserved for upward changes, since the machine is often travelling fast for upward changes, and the minimum interference with balance is desirable."—Ixion



"ENGLAND WON THE THIRD Speedway Test of 1936 at Belle Vue on Saturday, when they beat the Australians by 70 points to 36. This puts England ahead in the series by two matches to one. As a match—well, I have seen closer and, therefore, more exciting Tests. As a Test occasion, however, the meeting, and everything connected with it, was without parallel. With Max Grosskreutz, who would normally have skippered the Australians in this match, out of the side through injury sustained in the New Cross Test, with Ron Johnson riding with three broken ribs strapped up with plaster, and with Mick Murphy's ankle in such a damaged state that he should never have turned out at all, I think it was a foregone conclusion that England would win, and by a fairly big margin. The Australians, in fact, would have had every excuse had they approached the match with a 'beaten-from-the-start' attitude, but they did not. They tried to win in spite of the fact that they were fighting a losing battle, and the final score was by no means a true indication of the racing, much of which was really first-class."

"A ROADMAN OF WOMBWELL (Yorks) made himself a set of false teeth by melting down and old motor cycle crank case and pouring the aluminium into a mould."

"MOTORIST (AT WOOD GREEN police court): 'I don't go as fast now as I did when I was young.' Magistrate: 'And how old are you now?' Motorist: 'Twenty-three.'"

"I DID NOT BREAK the news about my car being smashed up to my wife at once. I told her cousin first, and he acted as a sort of shock absorber.'—Man at Highgate police court."

"RAIN MOST OF THE NIGHT and morning before the Cheshire Centre freak hill-climb and rally at Holt Bank, Edale, Derbyshire, threatened to undo all the good work of the Manchester Eagle MC, -who were responsible for the organisation. The attendance, on such a morning, was naturally rather thin, and only a dozen clubs turned up complete and in time for the rally count, although others rolled along later. And one of the most distant clubs in the Centre—Flint and District—presented 50% of its membership, which, coupled with its mileage, put it at the top of the list, with the Nil Desperandum (Macclesfield) club as runner-up. After the rally business was through everybody moved across from the sodden and miry fields to the equally miry hill-side where the long straight track, marked by bedraggled flags, lost itself in the mists of the summit several hundred feet higher up; obviously it was going to be a case of how little distance up to win, rather than how far up." Suffice to say the lightweights did just as well as the heavies and despite some crave attempts the sodden hill proved unclimbable. And on a personal note, I'm full of admiration for those hardy clubmen who turned out in foul weather for a rally and then tackled a 'freak' hill on the machines they depended on to get them home. Heroes one and all.





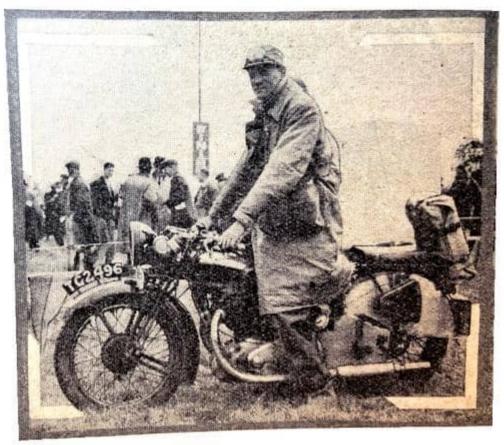


"The camera catches three different poses in the unlimited cc event. On the left is Smith (499cc Rudge; in the middle, LN Eyre (348cc BSA); and on the right, apparently about to step off, WE Williamson (490cc Norton)."

"FROM THE LETTERS that have been published concerning the lack of comradeship on the road to-day as compared with the state of affairs that obtained a few years ago emerges the fact that more often than not it is a lorry driver who gives help when it is needed. This only confirms my opinion that the drivers of the 'heavies' are rapidly becoming the one and only class of road user among which true comradeship and a sense of road craft is universally prevalent. These men live on the road, and they live by driving. Their job is responsible, and a foolish action may involve the loss of their means of livelihood. The strict speed limitation on heavy vehicles also makes the lorry driver an

artist in keeping up a decent average speed on a low maximum by the old trials riders' method of always keeping the wheels turning, no matter how slowly. If everybody drove as the lorry driver does, as a really serious job, there would be much less fuss and bother about road safety. , And I do commend his quick 'up-take' on anything to do with the road. I remember very gratefully how, one broiling summer day, I was walking down a busy road to my stranded outfit with a can of petrol. Car after car whizzed by, but a big lorry and trailer slowed down, and the driver called, 'Jump on the step, mate.' And when the outfit came in sight he did not ask if it was mine; he merely bawled above the thunder of his engine, 'Step off when I slow down,' and was gone without waiting for thanks. Obviously, one who could put two and two together."

"THE RESULTS OF THE ACU National Rally tell a story of enthusiasm and endurance that will long remain a credit to all those concerned. In the mileage competition, out of a total of 402 entries no fewer than 308, or 76.6%, checked in at Skegness, and between them they totalled the huge aggregate of 170,800 mile-age marks, equal to an average of 554.5 marks per competitor. And only one finisher failed to gain an award! Starting from different parts of the country, many of the riders succeeded in cramming into the 27 hours available the maximum allowable mileage of 729, and in addition called at up to 40 controls on the way! To average 27mph for 27 hours is no mean feat given perfect weather conditions, but when it is remembered that during the Rally week-end most of the competitors encountered more or less continuous rain and flooded roads the performances are all the more amazing. And it was not merely a case of big engines getting through: note the performance of RVE Jones, who, on a Francis-Barnett Plover, covered the full distance, and with a total of 775 marks deservedly won the 150cc class award. Miss PAM Fawcett (Velocette) and Miss P Cooper (Norton) tied for the ladies' prize with 785 marks. We offer our congratulations to the winners, the brothers GR and AA Smith (250 Levis and 350 Red Calthorpe), who tied with the excellent total of 809 marks. Congratulations are also due to the Yeadon-Guiseley Club for winning the interclub challenge trophy for the second year in succession with a figure of merit over double that of their nearest rivals. The club had 80% of its members present sat Skegness, while the 27 members who took part in the mileage competition gained between them 13,480 marks. Ninety competitors won gilt plaques, 106 silver plaques and 111 bronze plaques, while there was one no award. [And what a pity the Blue 'Un didn't interview him or her on their reaction to that—Ed.]



"Seen at

Skegness—How a Rally competitor, H Hopkins (Royal Enfield) has solved the double difficulty of protecting his passenger from the rear wheel and carrying luggage for two. The wheel is enclosed in sheet aluminium and the suitcase is carried in a special holder behind the pillion seat."

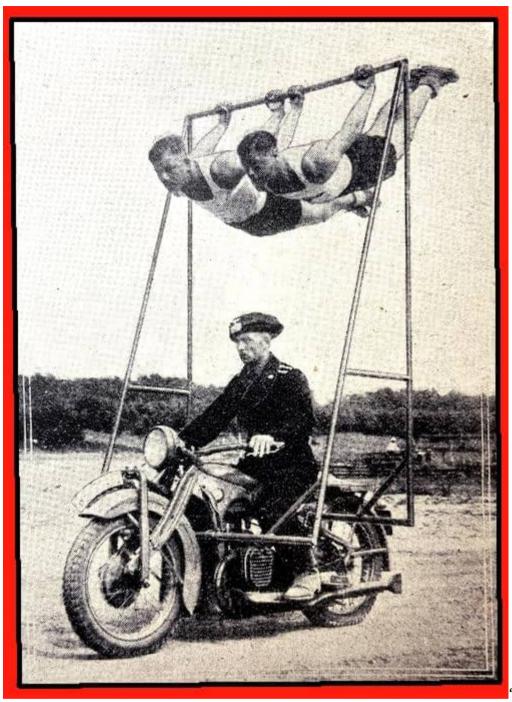
"A KETTERING MOTORIST was bitten by an Alsatian dog after he had pulled up in order to avoid running over the animal.

"IT'S A WASTE OF TIME to blow your hooter before turning into the North Circular Road. Everybody else is doing it; and they don't listen, anyway.'—Motorist at Willesden police court."

"IF WE WERE AT WAR and a person did not stop when a sentry said "Halt", he would be shot. To-day we are at war against road accidents, and persons who do not stop may expect to be brought before the court.'—The Chief Constable of Northampton to 11 cyclists fined 5s each for ignoring 'Halt' signs."

"THE CHIEF CONSTABLE of the West Riding Constabulary has instituted a system of police patrols at known danger spots. 'I don't want to catch motorists exceeding the limit,' he says. 'What I want is to stop careless driving.'"

- "THE PERSON WHO USES the roads recklessly, whether as a driver or pedestrian, is evil. Such a person risks his own life and other persons', including yours and mine.' Mr Hore-Belisha, in an address to schoolchildren."
- "COMPETITORS OF THE FICM International Rally in connection with the Olympic Games are due at the finishing control in Berlin to-day."
- "A NEWSPAPER CORRESPONDENT suggests that any motorist blamed for a fatal accident should be made to forfeit his vehicle."
- "I SHOULD SELL YOUR CAR when you get home—or perhaps you'd better burn it.'— Willesden magistrate to a motorist."
- "MOTORIST AT SHEDFIELD, Hants: 'there was a woman driver in front of me. I don't like staying behind women drivers. That's why I was speeding."
- "AA PATROLS RENDERED ASSISTANCE to members on nearly 4,000,000 occasions in one year and covered more than 37,000,000 miles."
- "UNDER A NEW REICH DECREE, German motorists who are unable to compensate an injured party for any damage will in future have their driving licences withdrawn."



"They can't

say 'Heil' up there, but they can show off their well-developed biceps! This acrobatic stunt is performed by members of the fifth tank regiment of the German Army. The motor cycle will be recognised as a BMW."

"THE DUBLIN 'HUNDRED' HANDICAP race, held in Phoenix Park last Saturday, was won in the most astonishing fashion by an absolute novice, a local man riding under the name of 'Max Joyner'. Receiving ten minutes start from the two scratch men, M Barrington (499cc Vincent-HRD) and TG Byrne (499cc Rudge), he scored a runaway win on his 499cc Rudge by over seven minutes, at an average speed of 70.04mph. 'Joyner' is a complete novice, having owned a motor cycle for only three mouths and never having

taken part in any competition previously. Yet he rode like an expert over the wet roads and, even more astonishing, made fastest lap of the race at 75.73mph—only 4½mph slower than the absolute record for the circuit, which was made in 1934 by CHW Slanders on a twin-cylinder New Imperial. The conditions were so difficult that other riders' lap speeds were mainly 6-8mph slower than in previous races. 'Joyner's' machine was a standard 1936 Rudge Ulster prepared by himself, so that there must have been at least half a dozen machines in the race with higher maximum speeds; so his performance was a most remarkable one in every way."



'Max Joyner' (499cc Rudge)

and his friends after the race. He won the Dublin 100—the first event in which he has competed—by over seven minutes." I'd hazard a few pints of the black stuff were downed that night.

"THE DAY OF DAYS in the Scottish motor cycling world did not dawn too brightly, but that did not in any way damp the enthusiasm of the hundreds of motor cyclists who converged on St Andrews on Friday night and Saturday morning for the Championship Meeting. However, about two hours before starting time the rain ceased and a high wind gave promise of driving away the rain clouds. The tide rolled back from the sands, pits were marked off, rakish-looking machines began to arrive on trailers, and crowds began to line the course...Results—Scottish Speed Championships: 250cc, WJ Smith (OK Supreme); 350cc, JH Blyth (Norton); 600cc, T McEwan Jnr (Norton); Unlimited cc, T McEwan Jnr (Norton).



"The start of the Medium weight (up to 600cc) Championship."

"IF YOU TAKE A KEEN interest in motor cycling matters in general, as well as in your own particular bus, you will have a pretty shrewd idea of what kind of machines Continental countries show and race. It is not so easy, however, to say off-hand what the average rider in each country prefers. America is perhaps the easiest problem, for there are comparatively few manufacturing firms, and their products are almost entirely of the large and heavy class. On the Continent there are many manufacturers and more types of machine. The big shows, such as those at Paris, Berlin and Milan, though representative of the country's products, do not necessarily provide a reliable guide to the type of machine which is in general use unless one has a good working knowledge of the country itself and the prevailing conditions. Even less do racing machines help as in this direction, since Continental manufacturers are more apt to produce special models for racing purposes than we are in this country. For instance, it is possible to give a rough general specification which would cover the vast majority of British racing and most touring models, and the differences would lie only in details and materials employed. I doubt it this would be possible in any other country. Let us make a start at home—with the certain knowledge that if I endeavour to indicate a certain specification as typical, the protagonists of other types will say that I am wrong. Well, my specification would run as follows: single-cylinder engine, overhead valve gear, detachable cylinder head, four-speed gear box, all-chain drive, separate engine and gear box, parallel-link front forks, eternal expanding brakes, dry-sump lubrication, cable-operated controls, hand clutch, foot-rests (as opposed to foot-boards), saddle tank, and tyres from 3 to 3½ in to suit the size and type of machine. Within this



The Brough Superior SS80, BSA Empire Star and Norton International were among the bikes that maintained British prestige on the world stage.

specification we should find such differences as overhead-camshaft or push-rod operation for valves, cradle- or single-tube frames, open or enclosed primary chains and a choice of engine shaft, clutch or rear wheel for the position of the main shock absorber. Not for a moment do I infer that we have no good side-valve units or twin- and multi-cylinder or two-stroke engines, but I do think that my specification covers the average British machine, touring or racing. As regards motor cycles, we are the most standardised producers in the world, and I am not quite sure if is a good thing. It is true that our products are admired and purchased throughout the world, but we are getting to a stage when anything which does not comply with this specification is regarded as almost freakish. Along this path progress does not lie. Let us turn next to France, a country which is seldom represented in the important road races of to-day. A Paris show is always interesting and reveals a wide and catholic trend of thought. Until the last year or so one was accustomed to see two or three four-cylinder models, several shaft drives, and a few pressed-steel frames. Enquiries gave one the idea that some of these were show models which were not often seen on the road. Later, as a result of the economic depression, one finds that the fancy models have disappeared and that there remain a majority of moderately priced utility machines which, in the main, resemble British types, and sometimes are fitted with British engines and accessories. Unit construction is more common in the higher-priced models, end there is, of course, that admirably designed and constructed flat-twin Gnome and Rhone, with its transverse engine, unit construction and shaft drive. This machine is, however, no more typical of the average French motor cycle than, say, the Ariel 'Square Four' is typical of British products; both are just admirable examples what can be done rather than what is generally done. The 'workaday' machines deserve their name, for they have to stand up to hard treatment and are often driven at comparatively low speeds in top gear to an extent which is most unusual in this country, and not very good for engine and transmission. Most of them are 500cc singles, but there is a fair sprinkling of 350s. There remains, however, a small but select market for really 'hot' machines. There is another side to the French market, which is perhaps the most important of all,



German engineering was taken seriousl;y in the boardrooms of British manufacturers. L-R: BMW R5, NSU Quick and Zündapp K800.

certainly from a numerical viewpoint. I refer to the large and increasing output of taxfree velomoteurs. These little machines must weigh not more than 66lb, and it is wonderful what a lot the French manufacturer has learned to include at the weight. Most have two-stroke engines of about 100cc, and many have linered aluminium cylinders to save weight. A clutch is almost always included, and often a two-speed gear. One ambitious manufacturer of this class of machine has even gone to the extent of producing an overhead-valve four-stroke built as a unit with three-speed gear. There is a tremendous sale for these machines in France and their equivalents in other Continental countries, for although the regulations differ, most manufacturing countries in Europe permit ultra-light motor cycles to be used tax free. In this respect we in Britain are badly handicapped, for not only does taxation, insurance, etc, prevent the sale of many thousands of machines of this type in our own country, but also the lack of experience to be gained by manufacture handicaps our manufacturers in competition for the Continental trade. French motor cycles are rather apt to run to vivid colour schemes and motifs which appeal more strongly to their owners than to our purely utilitarian mentalities, but no one can deny that they have an eye for line in sidecar coachwork which it would be difficult to surpass. Next to France we most consider Belgium. The two best-known products, in British eyes, are the FN and Sarolea, both notable for their remarkably straightforward and solid construction. Both in the main comply with the British specification already laid down, but the FN in particular differs in that unit-construction is favoured in most models. Both these makes have done a useful bit of racing, and the FN (supercharged) holds world's records in the popular 500cc class. In the main it is probably fair to say that the conditions of riding and types of machine are much as in France. It is when one passes on to Germany that one finds some of the most interesting and thoughtful designs. Mt



There was no lack of desirable motorcycl; es on the far side oif the Channel. L-R: Swiss Motosacoche, Austrian Puch and Dutch Eysink.

mind, and I expect yours also, swings instinctively to BMWs and DKWs of the TT type, but perhaps this is hardly fair. The former, it is true, is representative of the skilful, clever and sturdy design and construction to be found amongst the more expensive German machines, but except for police and other officials it has only a moderate market because of its price. The latter is a purely racing machine and bears little resemblance to the thousands of DKW two-strokes which are sold in Germany and in other countries. These standard DKWs are of normal construction but have the flat-top piston for which they are famous. There are other first-class two-strokes, some of which have their exhaust ports facing rearwards, which enables straight pipes to be. used, and twostrokes form the main plank of the utility market. All new motor cycles are tax free and riders of machines under 200cc are not required to undergo the stringent German driving tests. Among the larger and more expensive class there are, in addition to the BMW, the flat-twin Zündapp and Victoria models and a flat-four Zündapp, but there are also vertical single NSUs and single-cylinder Ardies and Standards, which are more conventional to our eyes. There is, in fact, a fairly extensive class of riders who admire British machines and ride their German equivalents. Several German manufacturers have adopted unit construction, and the big single unit NSU is an impressive piece of work. Germany leads the way in some electrical matters, and dynamos having a very large output are common. In one case an electric starter is fitted. Italy also shows skill and originality in design, but singles are the rule, and, although the engines are of remarkably clean and workmanlike construction, Italian riders, like our own, are fond of taps to twiddle, with the result that one is apt to see a certain number of untidy machines on the road. We are inclined to think of the marvellous racing Guzzis as typical of Italy's products—and we are right to this extent, at any rate—that spring frames are common and popular. This may be brought about by the Italian habit of staging high-speed endurance tests over second-rate roads. We think also of the transverse four-cylinder Rondine, but this beautiful piece of work is the product of a car firm and is not so common on the road. Italy has produced some very hot 175cc fourstrokes, but this type appears to be giving way to some extent to the 250cc. Most Italian machines are ohv singles with a general specification similar to our own, but we can never forget the wonderful showing of the side-valve Gileras in past International trials. German machines are common and British machines are popular, especially for racing, in Austria, from which country comes, amongst others, that interesting double-single (and double-twin) two-stroke, the Puch. Economic conditions in the country are apt to restrict the market, although a limited number of very high-class-British and foreign machines are imported annually. Czechoslovakia sticks mainly to singles, of which the Jawa provides good examples in all sizes from small two-strokes upwards to big ohv singles. The Scandinavian countries, and to some extent Holland, are by way of going in for twins. The Husqvarna is the Scandinavian machine



Belgian Saroleas, French Gnome et Rhones and Czechoslovakian Jawas were among formidable Continental contenders.

best known in. this country but there are quite a number of singles in use a1so. In Holland, from which country comes the Eysink, singles are probably in the majority, and there is a large class of ultra-light two-strokes, encouraged by favourable regulations. Shall I whisper that this is the land for the unregenerate, for noisy exhausts appear to be quite fashionable? Now I have dealt with most of the European manufacturing countries except Switzerland, the home of the Motosacoche. These admirable machines have a world-wide reputation. There is, however, a small but steady sale of British super-sports machines, in spite of very high insurance premiums and the cost of import. America is probably the only country in the world in which the single-cylinder engine is outnumbered, and the majority of the output consists of twins and fours from 750-1,400cc. Perhaps the types have been developed to suit the conditions—either immense distances over good, fast roads or else tremendously heavy going. In this country, however, we should consider American motor cycle engines to be too big for a light saloon car. I do not think I have left out any of the major motor cycle producing countries, and it remains for me to point a moral. This is a pastime from which shrink, but if I must...Every country which produces motor cycles in any quantity makes at least one really good one and a fair number of useful medium-priced machines, but wherever you go you get what you pay for and certainly not much more. The single, and mostly the big single, is popular throughout Europe, and there is a big market for the small ultralight two-stroke in many Continental countries. In spite of excellent British products in this line we still have more to learn about the subject. I do not think that British manufacturers need fear comparison with equivalent types from other countries, but they have not the commanding lead which they used to enjoy and might well pay more attention to one or two Continental developments. That British machines do not have a much larger sale on the Continent is due to economic causes rather than to design and manufacture. American machines are popular m a few Continental countries and in some of our colonies, but British machines are more than holding their own."—Ubique



From France came the high-cam Dax and sporty Buffier sidecar; the horizontally split cammy engine in the sandwich is the Italian Fiama.

IT IS A TRUTH UNIVERSALLY ACKNOWLEDGED that Derbyshire offers more interesting off-road riding than North London. Which is why, as the Blue 'Un reported, "For the second time the Wood Green Club made Longnor, near Buxton, the headquarters of its open Clayton Trophy Trial, and again it made a great success of the event, which is a tribute to the enthusiasm of its officers and members, for to organise an open trial so far from home is not exactly by way of being a joke. There was also the problem of this wonderful 1936 summer weather to contend with, and the forecast for last week-end was nothing to write home about. However, the Wood Green folk apparently brought their own weather with them to Derbyshire. Anyway, while the local wind blew a gale and the local rain occasionally sent down a few threatening drops, there was quite a decent sample of warm sunshine from time to time, and nobody, on recent experience, wanted to accuse that of being local! Out of a very representative entry of 74 (all solo riders) there were 67 starters, and the route of about 40 miles included 20 observed points, plus a brake test and a special observation test. No one gained all the marks possible on the observed sections, and LG Holdsworth (499cc Royal Enfield) and WA West (497cc Ariel) tied with a score of 85 marks each. The special observed test, Green Wood, had 12 sections; ties were decided by noting how many sections were covered before failing or footing. Both Holdsworth and West negotiated three, so the tie still existed. This meant reference to the brake test, and West stopped in 48ft 6in while Holdsworth took 59ft 1in, so once more he missed an open premier by a small margin in a deciding test—unlucky George! After starting from Longnor, the first observed hill was Hollinsclough, but it was observed down, and, as the surface was still a little slimy after the morning's rain, about a dozen people had to put their props out to retain their equilibrium, and a few of these were not successful in the effort. JA Morton (493cc Triumph), VM Beach (598cc Sunbeam), TN Blockley (247cc Levis), and GHG Barton (497cc Ariel) all failed. Almost immediately after dropping down Hollinsclough came the climb of Little Hollins, a stony lane that contrives to look far worse than it is...Some of the southern riders were obviously strange to the hard and knobbly rocks of Washgate, and occasionally suffered spin because their tyres were too hard. AJ White (497cc Ariel) looked more surprised than anybody when he came round the first bend and saw the hill rising before him—he footed good and early. On the other hand, JE Breffitt (496cc New Imperial), the Nottingham rider, knew exactly what to do, and his model had

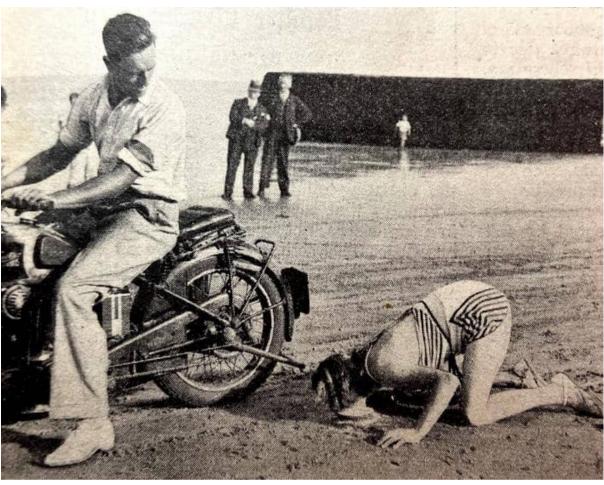
obviously been prepared 'just so'. The engine pulled at next to no revs, the gear ratio was neither too high for the engine nor so low as to encourage wheelspin, and the rear tyre was soft enough to absorb the steps and ledges in an enfolding embrace—a very pretty performance. A Southron who has become a Northerner by adoption (or adaptation), JH Kitt (349cc Rudge), tried the very slow method, but overdid it and had to foot, while Colin Edge (347cc Matchless), with his usual disregard of rocks and ledges, remained normally on the saddle and



"No body-leaning for N Truelove (493cc Sunbeam) on Washgate; he leans his mount over at an alarming angle considering the tricky surface." (Right) "Standing on the rests, AN Goddard (348cc BSA climbs Hollinsclough with his engine turning over rapidly in one of the lower gears."

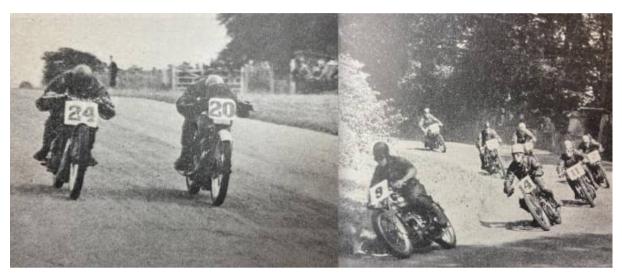
rolled over all obstacles at considerable speed. Then WA West (497cc Ariel), standing on the rests, made a particularly neat ascent, making some of the onlookers speculate as to the sort of stuff 'these Southern lads' practise on. Indeed, the strangers were outshining many of the locals, and even Hyslop (with Scott trial training) laid down his 250cc Triumph, and then after restarting had terrific wheelspin until the tyre bit into a hard patch, when the model reared up vertically, spilled its rider off backwards and almost plunged into the ravine. After these fireworks is was refreshing to see, some time later, AW Knowles (348cc Norton) climb the hill in a perfectly normal touring manner no excessive revs, no standing on rests, no anything but just riding up. True, he dropped a foot once, but quite without excitement or ferocity. And Bill Clarke, too, with the Vincent-HRD, brought out spontaneous appreciations from the onlookers when they saw how his spring frame undulated over the ledges—'a galloping spring mattress!' said one...The four sections of Flash had not much gradient but everything else—bog, rocks, grass, reeds and water. T Ridgeway, a local 'novice' riding a 1928 Velocette, and AJK Grover (348cc Ariel) from London were the only two individuals to cover a single section each clean...the majority of machines had to be manhandled out of the worst places...it separated the riders who have that resourcefulness in riding that enables them to keep going from those who stop...One rider only, LN Eyre (349cc BSA) made the complete

passage—local knowledge and an aptitude for 'scramble' riding serving him well...The brake test on a falling gradient and a grass-grown surface, produced some surprisingly poor stops (from about 25mph in neutral) and also some surprisingly good ones, such as R Dee (348cc OK Supreme) in 21ft and WT Bult (346cc Royal Enfield) in 24ft. However, 60-100ft stops were by no means uncommon, and several riders fell. This test was taken shortly after Hollinsclough had been climbed on the homeward run, the climb being fairly easy and practically dry except for a slightly greasy approach. LG Holdsworth (499cc Royal Enfield), C Edge (347cc Matchless), AN Goddard (349cc BSA), R Davis (249cc Triumph) and AW Knowles (348cc Norton) made the most effortless ascents. Only three of the starters failed to complete the course, and the finishers included Miss M Twigg (349cc OK Supreme) who, having no competition for the ladies' award, could not get it. But the organising club decided when the results were worked out that she should have a special souvenir. Results: Clayton Trophy (best individual performance), WA West (497cc Ariel), 85 marks; Le Vack Cup (second best performance), LG Holdsworth (499cc Royal Enfield), 85; Easterbrook Cup (best Wood Green MC member), KB Norris (248cc Red Panther), 80; Mrs Le Vack Cup (best lady competitor), not awarded; 250cc Cup, H Robinson (248cc Panther), 83; 350cc Cup, RH Snelling (346cc Royal Enfield), 83; Over 350cc Cup, JE Breffitt (496cc New Imperial), 80; Novice Tankard, AN Goddard (349cc BSA), 82; Wood Green Novice Tankard, HH Conran (349cc BSA), 75; Special Tankard (best performance on a pre-1930 machine), JJ Goudie (1929 499cc Rudge), 80; Team Award (one-make), Wood Green BSA team, PG Handford, EW White, HH Coman, 233 (walk-over); Team Award (any make), Thames DMC team, CN Rogers (346cc Royal Enfield), WA West (497cc Ariel), R Davis (249cc Triumph), 240."



"She stoops to conquer—A pillion rider competing in an obstacle race at a Walton-on-Naze (Essex) gymkhana stoops low to extract a chocolate from a disk of flour."

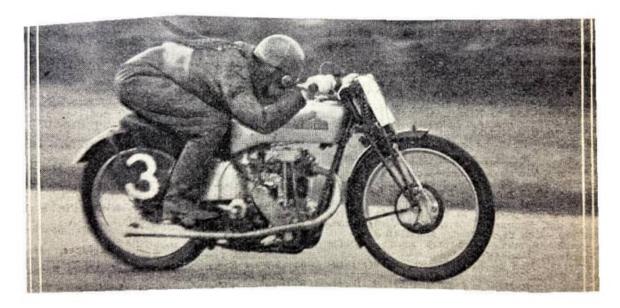
"ONLY ONE MEETING A YEAR at Donington is given over entirely to long-distance racing—the August meeting, when the Donington Grands Prix are held. Last Monday there were four events, three for solos and one for passenger machines not exceeding 750cc. From early in the morning competitors had been practising and hundreds of spectators who had been camping in the spacious grounds of the beautiful Donington Park were early astir to watch proceedings. As the morning wore on spectators poured into the grounds in hundreds, and by noon, when the 250cc event was due to start, the fences all round the course were lined several deep. Fortunately the course was dry and fairly free from dust after the heavy rain of the previous night. Clouds scudded across the sky before a stiff breeze and there was every prospect of a fine meeting...For the start of the 500cc Grand Prix the sun condescended to shine again. And well it might have done for there were 18 starters, including many famous Isle of Man men. From the fall of the flag it was obvious the race would be run at a very hot pace. Jock Forbes (490cc Norton) was the first to round Starkey Corner, but the rest of the field were only a fraction of a second later. On the first lap Stanley Woods (495cc Velocette) had leapt into the lead with 'Ginger' Wood (492cc New Imperial) and A Wellstead (493cc JAP) behind. N Croft (499cc Rudge) was soon at his pit with trouble, and as he got away again Stanley and 'Ginger' flashed down the straight with 'Ginger' just in the lead. Stanley came out of the corner first, but on the next lap 'Ginger' was just ahead again. Neck and neck they sped down the straight, Stanley gaining the lead on the bend only by leaving his braking a fraction of a second later than that of his rival. Behind these two the rest of the field were streaking, slow in comparison, but nevertheless very fast. A Wellstead



"Neck and neck! A thrilling glimpse of HL Daniell (346cc AJS) and H Watson (348cc Velocette) near Starkey Corner." (Right) "All banked over—a group of riders caught by the camera at Coppice Corner. In the lead is the TT rider Chris Tattersall (CTS), while following are E Grocock (Rudge), Ron Harris and H Lamacraft (Excelsior)."

was barely holding his third position, for right on his tail were M Cann (490cc Norton) and HL Daniell (490cc Norton), with Cann sometimes in third place and sometimes in fourth, so close were they together. Two terrific duels had developed by the sixth lap, one between 'Ginger' Wood and Stanley Woods, with 'Ginger' just in the lead, and the other between M Cann and A Wellstead with nothing whatever between them. On the eighth lap 'Ginger' Wood still led with Stanley Woods some twenty yards behind, but M Cann had shaken off Wellstead, who had slowed fractionally, letting Daniell into fourth position. For the next three laps the duel between Stanley and 'Ginger' continued. Then on the 11th lap Stanley came round in front by some 20 yards. He was only to hold the lead for a lap, however, for at the end of the 12th lap he came in to his pit to retire, with expensive noises in the engine and lack of compression, leaving 'Ginger' Wood in the lead. Now Daniell and Cann came into the picture again, and Daniell, having passed Cann, set out to chase Wood. A Wellstead parted company with his machine at the Hairpin bend. Indeed, the pace was so hot that there were several spills and retirements in the early stages. As the half-way mark was passed the leaders' positions remained unchanged. 'Ginger' was lapping very consistently and Daniell seemed unable to close up the gap that separated them. Gradually the field thinned out, and after 30 laps only eight men were left out of the original 18. Then, sensation! With only three laps to go, both Wood and Daniell were overdue, and when they eventually appeared Daniell was

in the lead with Wood only just behind. Wood had run out of petrol and had had to push to the paddock to refill. Could Wood gain the few seconds necessary to beat Daniell? And then came some more rain to complicate proceedings. With only one more lap to go Wood was five seconds behind. Everyone waited on tiptoe. Then the riders flashed down the straight, and it was seen that Wood was in front—by a machine's length! Truly a terrific finish to a grand meeting. **Result, 500cc Race (100 laps):** 1, S Wood (492cc New Imperial), 66.24mph; 2, HL Daniell (490cc Norton), 66.23mph; 3, M Cann (490cc Norton), 65.34mph."



"Flat along the tank: a fine action picture of lightweight TT winner AR Foster taking his New Imperial through the last lap of the 250cc race which he won at the recent meeting at Donington."

"THE ACU WILL probably ban foreign riders from joining British speedway teams after this season."

"THERE WAS A Society for the Prevention of Street Accidents and Dangerous Driving in 1847!"

"WHAT IS SAID to be the world's first plant for making Diesel oil from coal has been opened at Gawber, near Barugh (Yorkshire)."

"RE THE LETTERS THAT have appeared in *The Motor Cycle* anent 'That Friendly Spirit', I should like to relate an experience of mine. I own a BSA outfit and recently I took my wife for an evening run. While returning somewhere about 11pm we became stranded in the midst of a new housing suburb owing to lack of petrol. I eventually located a garage, which proved useless as it was a lock-up. Along came a kindly policeman, who upon learning my trouble was most sympathetic and did his utmost to find a spot of juice. Alas, all in vain. He thereupon took me on a route march and called upon a couple of tradesmen, but there seemed to be a dearth of petrol in the vicinity. We wended our way

back to the machine where the policeman called upon a passer-by and together they proceeded to push the machine towards a yard they knew where it would be possible to put the outfit away for the night. Fortunately another outfit passed us, and the driver turned back and asked the trouble. Immediately he was informed he undid the bulb of his horn and proceeded to transfer some petrol from his tank to mine. I have since met this gentleman and reiterated my gratitude, but I have never seen the policeman since, but he will always have my sincere thanks for his 'matey' action.

'BSA', Wednesbury, Staffs.

"FOR LONG IT HAS BEEN HELD that ignorance of the law is no defence. Is it reasonable, however, to expect any ordinary motorist or motor cyclist to be au fait with the hundreds of laws and regulations that now affect the ownership and use of a motor vehicle? The number has doubled—possibly even trebled—over the past six years, and almost month by month the position becomes more fantastic. Even the police, it seems, have been unable to keep pace with the spate of laws and regulations. The annoying fact is that as yet there is not the slightest sign of the flow being stemmed. We are in favour of everything that helps to ensure that the roads are safe and pleasurable to use.

Consequently, we do not suggest for one moment that there should be any slackening of right-minded effort to improve road conditions, but we urge most strongly that it is high time the whole motoring law was codified and simplified. The red tape that has accumulated over the years should be swept aside, and the multifarious acts and regulations combined to form an intelligible whole, so that the user of a motor vehicle, or, for that matter of a bicycle, has a fair chance of being able to obey the law in the letter as well as the spirit."

"NEARLY TWO HUNDRED MILES of road within the city of Birmingham are to be floodlit. This is good news, indeed, because it means that when the scheme has been brought to fruition a quarter of Birmingham's total road mileage will be adequately lit, including all the arterial roads leading from the City Centre and a considerable length of secondary traffic routes. Birmingham, as regards roads, is one of the most go-ahead cities in the country. Ten and more years ago it adopted the principle of dual carriageways. It has planned ahead, even if some of its ideas upon the subject of traffic regulation and the restriction to 30mph of apparently perfectly safe roads are open to criticism. In its big scheme of road illumination Birmingham is onward towards the ideal—that the roads themselves shall be illuminated and the need for lamps on vehicles eliminated. Another feature of the scheme that appeals to us is the decision to provide graded illumination on the side roads leading into the floodlit main roads. This is excellent, but the proposal is that the grading shall only extend over a distance of a hundred yards. Is this a sufficient distance? For ourselves, we doubt it."



"Onwards to the Olympic Games. Four motor cyclists near Budapest 'guard' one of the relays of athletes who carried a lighted torch by hand from the ancient home of the sports in Greece to the 1936 venue in Berlin."

"PROPOSED USE OF LIGHT Motor Cycles for patrolling 'beats'—cynics and others will probably say, 'Another road danger!' even as they did when the Post Office wisely decided to save time on the delivery of telegrams by mounting telegraph messengers on motor cycles. The experiment, however, proved an outstanding success, and the freedom from accident little short of amazing. We believe the present experiment of mounting policemen detailed for patrol work on motor cycles will also prove an outstanding success...The rapid extension of built-up areas around London has brought fresh problems into being, and the question of increasing the efficiency of the police on patrol work by mounting them on motor cycles has reached the stage when actual experiments as to the best possible type of machine are being carded out. Lightness, ease of control and reliability are obviously the most important features of a machine for such work."

"THE REGULATIONS FOR THE 1936 International include allowance for a check almost immediately after the start each morning. This is inspired by the fact that in the previous events quite a large percentage of the men have experienced difficulty in starting up from cold every morning. I beg to repeat that this problem is responsible for a great many men abandoning the motor cycle as they begin to age. Car engines invariably start hot or cold at a touch of the switch button, except on really severe mornings in winter. Ill-maintained motor cycle engines are often laborious and uncertain starters, both when hot and cold. We may be growing 'nesh' as a nation, but the fact remains that middle-aged men resent repeated kicking, especially when they are heavily clad in weatherproof overalls."—Ixion

"IN THE ACU TESTS of the International riders and machines at Brooklands the quickest man took about 8min to drop out the rear wheel, strip cover and tube, refit, inflate, and replace wheel. Does memory betray me in that I was rather shocked by this figure? In my youth we used to practise this particular stunt for End-to-End record purposes on a much simpler layout. We used belt drive with no pedalling gear at the date I have in mind. The procedure was to unhook the belt and spin the rear spindle nuts off with 8in tommies: the wheel would then just tumble out of big, plain fork-ends; you could rip the beaded-edge cover off with your fingers, and the only slow item (as we had no air bottles) was pumping up the tube. But offhand I should guess that the job took a man like Hart-Davies about 5 minutes maximum, timed from when his back wheel came to rest until he pushed off to restart. Am I wrong? Probably I am right, because the wirededge cover takes rather more coaxing off than the old beaded-edge, and the wheel wants rather more wangling than those obsolete, simple hub assemblies. Anyhow, the job was so swift and easy that in one Six-Day trial I actually fitted a new back wheel cover every day as a precaution. Other maintenance jobs were proportionately speedy; it was by no means unknown for us to decoke during a trial, in order that the engine might be at its best for the hills in the last three days; and certain engines could be decoked in half an hour by a good operator."—Ixion

# Camping in Foreign Lands

Adventures on an Out=of=the= Ordinary Tour Through France, Belgium and Germany By J. P. COLLINS

"MAGGIE, BLESS HER ANCIENT innards, gobbled up the miles from Glasgow like a plucked 'un. She seemed to sense that the sunny land of France lay ahead and not a single stutter marred the even rhythm of her song till we drew up in the lee of the chalk cliffs of Dover. In two hours we were in France. La Douane, in all dignity of official uniform, with bristling moustaches and pendant cigarette, slowly approached. 'Rien à declarer, Monsieur,' I proudly enunciated (and the glory of those trilled 'r's' would have warmed the cockles of my old French teacher's heart!) He raised a whimsical eyebrow, scrawled a mysterious symbol on my packs and said. 'Nothin', eh? OK.'... I thought I could distinguish a titter in Maggie's exhaust note as I crept away. In passing let me mention that the streets of Calais, and indeed, of every French town, were apparently made by a gang of drunken navvies suffering from a 'trials-route complex'. Pedestrian tourists call these abominable streets 'quaint'. I called them a variety of names which are unprintable. In the first kilometre over that sacré pavé I lost one fishtail, one rear lamp, my temper, and all my dignity. My route took me along the coast of Brittany, and wherever evening found me I made my camp, and everywhere found a ready welcome from the French people. Often my request for a corner of a field for my tent was met by the offer of the use of the hayloft, or, indeed, of a bedroom in the house; and these I always gladly accepted, for, fond as I am of camping beneath the stars, there is a



"In the first kilometre over that sacré pavé I lost one fishtail, one rear lamp, two packs, my temper, and all my dignity." (Right) ...nearly being jailed as a spy after trying to camp on the military territory."

difference between Scottish heather and hard-baked French clay as a mattress for weary bones. The beauties of the coast of Brittany have been too often and too well described for me to repeat. Suffice it to say that it was with reluctance that I turned my back to the grey walls of old St Malo, took a last look at the golden sands, white surfline, and unbelievably green sea of the Côte d'Emeraude, and headed inland for Paris. Meanwhile, Maggie, poor soul, was suffering from her change of diet. The queer petrol which we had to accept, coupled with the heat of the sun, were playing havoc with her digestive system, and she had frequent attacks of hiccups. Indeed, at one of the busiest crossings of Paris she disgraced me by finally fading out right in the middle of the road, to the extreme annoyance of about 3,000 taxi-drivers, who arrived simultaneously with their cabs. They called me—amongst other things—a 'maquereau'...I wasn't sure what this meant, but it sounded decidedly fishy! We rolled across the battle-scarred plains of Champagne and Lorraine, and eventually arrived at Strasbourg. With the Black Forest came mountains, green fields, ancient castles, rushing rivers, and towering pines. The cool mountain air cured Maggie's indigestion and she rushed merrily up the winding road that climbs through steep aisles of trees towards Freudenstadt. In Oberammergau I saw the unforgettable spectacle of the Passion Play; in Munich drank the world's best beer; and in Berlin stuffed myself with sausages and sauerkraut. So with palaces and pastry, sauerkraut and schlosses, bridges and beer-gardens, the



kaleidoscopic panorama slid on. Magdeburg, Brunswick, Hamelin, and eventually Cologne. Along the left bank of the Rhine I meandered to Mainz, and here an old friend of student days took command. Maggie was despatched downstream in a coal barge, while we, clad principally in bathing costumes, drifted down with the current in a canoe. There is no finer way of appreciating the beauties of this wonderful river than by canoe. When hungry, we pulled into one of the numerous Rhenish villages and—well, any food is good when washed down with Rhine wine. When we wanted to bathe we simply strapped down the paddles and rolled over! Bed and breakfast everywhere cost only two and a half marks, that is about two and sixpence, with registered marks. Too soon the spire of the Dom hove in view and Maggie and I, reunited, were trundling towards Aix-la-Chapelle and Belgium. Except for nearly being jailed as a spy after my trying to camp on the military territory which stretches for a long distance from the border, nothing exciting occurred. But the roads...holy smoke! I had thought the roads of France bad, but those of Belgium, and especially of Liége...! However, the universal kindness of the Belgian people made up in a great measure for the road conditions. As almost every farmer kept bees as well as cows, milk and honey literally flowed in the land. I gasped with amazement at the Grottoes of Han to see the weirdly magnificent stalagmites and stalactites in those wondrous subterranean caves; and I listened with bated breath to the swelling chorus of the famous carillon at Bruges. Two days' rest at Ostend followed and then a final glorious dash along the Littoral. Customs...Customs again...a third time Customs, and, lo! we stood again beneath the chalk cliffs of Dover. At six next morning Maggie's heart was pulsing with British petrol, and by nine that same night her tyres were skimming swiftly over the smooth surface of Sauchiehall Street. 'Maggie,' I said, as we slid into the garage, 'we're home again, and I'm proud of you."

"TRAFFIC TONNAGE ON Great Britain's roads has increased by 34.5% during the four years 1931-35, according to the Ministry of Transport....There was one motor vehicle to every 21.3 persons in Britain in 1935. Over 1,250,000 people are now employed in the motor vehicle industry."

"JUST BEFORE THE HOUSE of Commons rose for the recess quite a number of questions of interest to motor cyclists were fired at the appropriate Ministers. Our old friend Captain Strickland, of the BMCA, tackled the Home Secretary afresh on the subject of motor cyclists riding together and stopped by the police at the same time being summoned to attend court on different days. Two instances were postulated, and in both it was stated that the Home Secretary was looking into the circumstances in order to find out why the charges were dealt with on different dates. It can be very unfair to fix different dates, because then, unless the two men concerned each manage to get a couple of days off their work, they cannot give corroborative evidence. Another MP, Mr Windsor, tackled the Home Secretary on a speedway matter. He asked whether the Home Secretary's attention had been drawn to the increasing number of speedway accidents, and whether he was aware that this was due to a lack of elementary

precaution; that, because the riders were not regular employees, very little regard was paid to their safety, and riders unfit to take part on account of previous injuries were even encouraged to continue riding? Mr Windsor wound up by asking whether the Home Secretary would consider instituting an enquiry. Sir John Simon's answer was brief—he did not think an enquiry into the sport of motor cycling was called for. That's not the whole list of questions on motor cycle matters—Mr Kelly wants to stop window-cleaners carrying ladders and buckets on 'motor and other cycles' because such impedimenta make it difficult for them to give proper hand signals."

"MOTORISED BICYCLES (THE UBIQUITOUS velomoteurs of the Continent) have not as yet 'taken on' in the industrial North. But public interest in their possibilities could no doubt be awakened. Not long ago I saw a colossal crowd in Liverpool, and thinking it must be something serious I edged in and found that the attraction was a German miniature (with its international 'D' plaque almost hiding it) standing unattended by the kerb. During the past week or so I have been impressed by the huge crowds continuously contemplating a Cyc-auto standing outside a dealer's in Manchester's street of motor showrooms—Deansgate. Postmen, tram conductors, clerks, salesmen, old ladies, business men, sailors, messenger boys, flappers—they all looked as though the little machine was suggesting possibilities to them. Yes! I think the velomoteur is just about due, in the north as well as south. Only we need a leaf from the Continental book in such matters as taxation and insurance."

"THE EUROPEAN SITUATION, Navy week in three important ports, and the number of ships away from home waters—these, it was decided, were the reasons for the small number of Naval officers who turned up for the Arbuthnot Trophy Trial which the ACU was holding last week on War Department land near Camberley. Precisely two Naval officers entered. Instead of calling everything off, the ACU let the two concerned, Nash and PHC Illingworth, have a race over the heathland on their own. All went well until Nash found a tree in the light! In view of the minute entry it was decided not to award the Arbuthnot Trophy itself."



"Problem picture. Which rider in this group of motor cycle footballers last kicked the ball when the snapshot was taken? No prize offered for the correct answer!"

"YOUR CORRESPONDENT STATES that so far as he knows there is no 24-hour International motorcycle race in the world. May I correct this error and ignorance concerning sport on the Continent? Since before the war 24-hour races for motor cars, motor cycles, cycle-cars and even bicycles have been great favourites in Europe. The French editions of this race have generally gone under the name of Bol d'Or (Gold Vase), and the motor cycle counterpart has been held in the past few years in the Forest, of St Germain, near Paris, at Whitsun. This year's winner was the Belgian, Craet, on a 500cc Gillet-Herstal covering 1,285.58 miles in the 24 hours (average speed 53.5mph). The machines are driven by the same rider throughout the race, which explains the low average on a closed circuit; but what a wonderful test for man and machine! In Belgium a great number of the motor cycle clubs organise 24-hour races, but on unguarded roads, with set average speeds which are severely controlled at various points on the route. So, after all, there is 'nothing new under the sun'.

'Sarolea 600cc', Malines, Belgium.

"SOME OF YOUR READERS appear to think the driving test is unfair, so I would like to give my experience. Previous to my test I 'swotted' all the articles given in the 'Blue 'Un' on the test, learned the Highway Code properly and did as much riding as possible in the three months. I had to wait half an hour for my test (during which time I developed a bad attack of 'nerves', so that when it came to my turn I was not feeling too happy.

However, it was extremely simple, consisting of questions on the Highway Code, running along the road, stopping and starting on a hill, manoeuvres in traffic and an emergency stop. It was all over in 15 minutes. The examiner was extremely courteous, and was amused when I told him I had expected something much worse. On the whole, I fail to see why anyone possessed of any common sense and riding ability should fail, unless it be through gross carelessness or nerves.

## 'Eighteen Years', Sunderland."

"WHY SHOULD A 500 do 100mpg at 35mph, while a 250 does only 80mpg at the same speed? Two road tests in one of this year's issues of The Motor Cycle. My 'A2' does 100mpg, taking an average over six months. with an almost dead accurate speedometer—quite good for a 1931 350. My idea of what a good motor cycle should have: Good brakes, good head lamp beam, a really efficient front mudguard, Magdyno gear incorporating free-wheel (like those on rear wheels of bicycles), no instrument panel, rain deflector on tank, enclosed valves, a back wheel which comes out easily, and, please, no speedometer in the tank. To conclude, if British, motor cycle manufacturers would push sales in Canada, and have a really decent spares service (not forgetting tyres), they could do quite a big business—when times improve over there, anyhow. Here's to the best and healthiest pastime of all—motor cycling!

Alan W Smith, Edinburgh."

"I READ THE INTERESTING article entitled 'Continental Camaraderie' and was very gratified that this feature of foreign touring received such excellent advertisement. Members of this club return from their trips abroad with tales of the kindness and generosity of their temporary hosts, mentioning in particular the help given them by the motor cyclists they meet. There seems to be no limit to the trouble these fellow motor cyclists will take to help us, and it is always our regret that we see so few Continental motor cyclists touring in this country. I am sure all those who have experienced kindnesses such as described by your contributor are only too anxious to reciprocate, and to prove that a sense of comradeship exists as strongly in the English motor cyclist. Hilton Peake, Hon Secretary, International Motorcyclists Tour Club, London, N22."



"English road racing. WV Argent (497cc Ariel) smiles as he leads TC Whitton (348cc Velocette) round the Castle Point corner during the unlimited cc race at the Pendennis Club's recent road races at Falmouth."

"I GET QUITE A LAUGH out of some of your correspondents' letters regarding American motor cycles. For instance, a fellow was praising the American seat post and riding position. If he had ridden American motors as much as I have he would make no such statements, for they really ride quite badly compared with your English jobs. I have had a 1936 Ariel Red Hunter and now own an International Norton: both of these machines ride more comfortably than the American jobs, even though the Norton is fitted with a semi-rigid saddle. Another contributor to your pages once said an Indian 'four' could take on any English job on pick-up', but this is quite ridiculous as you have to shift the Indian so slowly that almost any 350cc machine could leave it far behind. I am so satisfied with my English single that I see no reason for a multi, although I do like the looks of your new 1,000cc Ariel. I'm also interested in your development of spring frames as I realise this is is the only way to make high-performance jobs ride better. Our American motors haven't the workmanship and design of yours, as they are really commercial motors, on the whole, hauling heavy loads with much abuse. As for myself I enjoy tinkering with my bike, but the average American rider doesn't; in fact, most of them know very little about the machines they ride other than how to put gas and oil in them I've subscribed to your magazine for some time and it amazes me how you find no much material every week; you sure must have plenty of motor cycle activity. Our only 'cycle magazine comes out once a month. I would consider myself lucky to live in a motor cycling country such as yours, even though the tax and gas prices are higher. I

cannot understand why you don't use crash bars in England: they are really necessary in this country where so many traffic accidents occur. Before closing, I would like to compliment you on your magazine that keeps me in touch with England.

## Clark Trumbull Jnr, Washington, USA."

"I HAVE BOUGHT during the last eight years seven British made motor cycles. The reason: I like a hand clutch, a light machine, and a British-made product. However, after all these years I think I am too patriotic, and I am getting tired of the lack of interest displayed by your manufacturers in the advancement of two-up machines, cleanliness of design, and multi-cylinders at a reasonable price. The pillion question has been bothering me for the past few years since acquiring a fairy. The Harley-Davidson people have perfected a double seat that is just the thing and they are selling their mounts to many for this reason alone. This seat is comfortable, neat, and also provides the extra convenience of hand grips. The comfort is obtained through the fact that it is formfitting; it is centrally placed, and is well sprung; an auxiliary spring brought into play in a few seconds gives the added pressure necessary for two. This seat over-comes the disadvantages of the British types of seats, which are, none of them, really sprung; they are not ideally located or conform to the lines of the machines, and are not form-fitting. Because of this the pillion rider gets any battery acid that is spilled and any mud or water flung up by the rear wheel, and the driver has not the same control over his mount. I notice spring frames are on the 'up', but they are of little use for two unless formed with a rigid rear fender. Also, the pillion should conform to the lines of the design and incorporate hand-grips of some sort as an extra safeguard. I feel that now, when the 1937 mounts are on the boards, to demand action on the following points: more and cheaper multis, clean-up designs by having horns and other items built in, and look after the pillion rider.

## FC Brandt Jnr, Ontario, Canada."

"A SPEED OF 100MPH or more can be maintained on the TT course next year if necessary. How? By using steam. It is quite possible to design and build a steam motor cycle to do this in silence and comfort; that is, with no vibration and using common lamp oil as fuel. Why have a gear box or clutch or primary chain? All this waste of power and weight is done away with in the steam motor cycle. We certainly do need a reformation in motor cycle design.

'Steam', Stanford-le-Hope, Essex."



"The valve drops in to

meet the piston! The reader who sent this piston to *The Motor Cycle* said that he was travelling at 55mph at the time of the 'introduction' and he believes that the case was due to the valve collets jumping out of position."

"THE MORE FAR-SEEING designers will of their own accord dwell upon the characteristics they consider essential in the machine of the future. They will dismiss as obvious the need for reliability, freedom from adjustment excellent brakes, and 'perfect' steering and road-holding, and pass on to discuss performance characteristics. Sheer speed, in the opinion of more than one of our leading designers, is of minor importance unless Great Britain develops high-speed motor roads on the lines of those in Germany and Italy. If such roads are laid down, design will be affected even as the German roads are to-day having their effect upon German automobile design. Since, however, it seems improbable that there will be a network of similar roads in this country, and in any case distances are likely to he short compared with, say, Germany, little store is set by sheer speed. What these few designers emphasise is the need for machines capable of attaining a reasonably high speed with great rapidity. This is a most sensible view. Acceleration is the factor of importance, though not acceleration of the type designers

endow TT machines. The need is for excellent acceleration from more or less a 'traffic crawl', whereas in the TT the aim is to ensure it at high engine speeds. Good acceleration, in turn, involves a high power/weight ratio. Already the TT has proved that, given rear-wheel springing, a light machine can hold the road satisfactorily. It seems that as the years pass there will be a growing tendency to think in terms of power/weight ratios."

"ENTRIES FOR THE MANX Grand Prix have closed with the magnificent total of 128. This is 26 more than last year's number and, incidentally, half as many again as there were for the TT. Road racing may not appeal to manufacturers so lunch as it did in years gone by, but to sporting non-professional motor cyclists its appeal seems to grow with the passage of time."

"CURIOUSLY ENOUGH, IN THE somewhat contrariwise manner of the BMCRC, two- and three-lap outer-circuit races were a feature of last Saturday's Mountain Championship Day at Brooklands. Of course, it should be emphasised that there were two excellent 'mountain' races tucked in at the-end of the programme. However, it was such a perfect afternoon that even anyone who had looked forward to seeing 'mountain' races all the time could not by any stretch of imagination have been disappointed. The five outercircuit races were all interesting, and although one or two winners had obviously caught the handicappers napping, there were some remarkably close finishes. The first event of the afternoon was a three-lap outer-circuit all-corners' handicap. Out of an entry of 29 riders there were six non-starters. LA Dear (148cc New Imperial) and RC Rowland (498cc Zenith sc) were the first men off, and it was not until they had covered the best part of one lap that the scratch man, NB Pope, with his supercharged 998cc Brough Superior, was pushed off. Unfortunately for him one plug promptly oiled up, and after one lap he toured in. In the meantime EG Mobbs (348cc Velocette), with a good start, was leading the field on the second lap at a cracking pace which the left the backmarkers little chance to overhaul him. CB Bickell (498cc Bickell-JAP) did his best, but the Velocette man, followed at intervals by EJ Tubb (498cc Grindlay Peerless) and DA Loveday (348cc Velocette) crossed the line before him in that order. Tubb, by reason of a lap at 102.48mph, won bus Gold Star. Next came a short and snappy two-lap allcomers' handicap. EC Fernihough (9996cc Brough Superior) was the scratch man, giving one minute six seconds to the limit man, RC Rowland (498cc Zenith sc), and two seconds less to MD Whitworth and his old but fleet 348cc Rex Acme.



"Ebby', flag in hand, keeps an eye on his watches preparatory to sending off the limit man, RC Rowland (498cc Zenith sc) in the second three-lap outer-circuit handicap race."

Fernihough made a perfect getaway, going through the gears in glorious style. Little wonder that when he came round again, streaking past the Vickers sheds, his standing lap was the fastest ever—at 104.85mph. Even so, he was still a long way behind Whitworth, who had somehow found a little extra speed and was doing very nicely at round about 87-88mph. At the end of the second lap he came round at least ten whole seconds ahead of Fernihough, whose flying lap was done at 118.5mph, and even so only just managed to pip CB Bickell (498cc Bickell-JAP) for second place. This time EJ Tubb (498cc Grindlay Peerless) had to be content with fourth place. Quite one of the. best races of the day was the second three-lap outer-circuit all-comers' handicap. Bickell was the scratch man, EJ Tubb and DA Loveday had both been re-handicapped. For two laps the limit man, RC Rowland (Zenith sc), led the field, followed by EG Bishop (Excelsior sc). The remainder of the field was thoroughly spread out until the last lap, or so it seemed. Then all eyes were looking and straining towards the Byfleet banking, where a tight bunch of riders could be seen, with the backmarkers fast over-hauling them. Across the Fork they came—an amazing spectacle—with the faster men gradually overhauling the slower. Bickell flashed over the line first, GR Stanley (498cc Excelsior) was second, while DC Minett (499cc Rudge) only just got into third place ahead of RC Rowland (Zenith sc)." And, for the record, MD Whitworth (348cc Rex-Acme) won the 25-lap Junior Mountain Championship; Noel Pope (490cc Norton) won the Senior.



"Last Saturday afternoon Brooklands was at its best, with little or no wind and bathed throughout in glorious sunshine as this glimpse of the Members' Banking shows. On the right, FL Beart (490cc Norton) can be seen chasing LE Good (499cc Rudge) in the Senior Mountain Championship Race."

RIDING A GRINDLAY PEERLESS fitted with a 500cc speedway-type JAP engine Francis Beart established the all-time Brooklands test hill record of 6.99sec (an average of 34.55mph). He subsequently set up a workshop at Brooklands where bikes he tuned claimed 12 track and three world records.

"THE BMCA IS ORGANISING a meeting of motor cyclists at 'The Princess Louise', New Oxford Street, to discuss the formation of Metropolitan Vigilance Committees. This is the first real attempt to organise a 'non-association' political body for motor cyclists, and as it is backed by such men as Lord Sandhurst and Captain Strickland there is no doubt that such a committee will be able to voice its opinions in no uncertain terms, and achieve results.

RG Mair, Ilford, Essex."

"TWO ENGLISHMEN TOOK PART in the French Grand Prix, held on the fast Comminges circuit. They were EA Mellors, who won the 350cc class at 83.5mph; and Ken Leach (Excelsior), who was forced to retire while amongst the leaders in the 250cc race. The 350cc and 175cc events were held simultaneously. Mellors (Velocette) went into the lead from the outset in the 350cc class and on his first circuit was seen to be nearly 200 yards ahead of Charlier (FN), second, and Sunnqvist (Husqvarna), third. Mellors was

lapping at nearly 86mph. at times, but he was unable to shake off the redoubtable Sunnqvist Meanwhile, Charlier disappeared from the battle, and it was left to Loyer (Velocette) and Grissly (Sarolea) to chase the leaders. Only ten yards separated Mellors and Sunnqvist at times. Then Sunnqvist had a chain break on the Husqvarna on his 13th lap, and Mellors was left in the undisputed lead."



"HOPE YOU READ the recent editorial on the relative merits of planned and unplanned holidays. If a fellow works 51 (or even 50) weeks in a year\*, and has no definite idea where he wants to go on his annual vac, he must surely have something of a vacuum under his parting. He must further he a cold-blooded sort of fish, devoid of natural affections if there is nobody at a distance whom he wants to see. And if a fellow has a mind that works, his annual week will be filled up for years ahead by plans for going places and seeing things or people. On the other hand, an absolutely unplanned day once in a while can be the craziest fun. I particularly remember one such absolutely dotty 18 hours spent in the company of the late IB Hart-Davies (the End-to-End record

specialist) and another rider. All three of us were mounted on machines which were moderately fast for those days, there was practically no traffic and—of course—no tar. We didn't quite know what to do with an unexpected free day, and we decided to have a 'tear over England'. We were to go as fast as safety and our engines permitted; we took no maps; and whoever happened to be ahead at the moment took any turning which attracted him. We ripped over half England in clouds of dust, and marvellous to relate we finished intact and together, though we were riding three different makes of bus, and were riders of three very different types. I also spent another amusing day with a single companion. Once more we took no maps, and rode on one principle—that whenever we found ourselves on a road and a worse road turned off it, we must take that worse road. We got into some funny places, and we encountered much extreme beauty."—Ixion \*In 1936 most workers had only one or two weeks' paid holiday a year.

"SELDOM IN A BIG ROAD RACE has there been such a runaway win as FL Frith (499cc Norton) scored in the 500cc Ulster Grand Prix last Saturday or victory by so few inches as that gained by S Wood (246cc New Imperial) in the 250cc race. Seldom, too, has a man taken over the entry of a crashed rider at the last moment and proceeded to win, which was the feat of ER Thomas (Velocette) in the 350cc event. The Ulster was a race full of surprises. The weather conditions were magnificent—sunny most of the time with the sun tempered by a light breeze—and the course better than it has ever been. As all know, the 24-mile Clady circuit is a fast course—none faster—and the Ulster Grand Prix easily holds the title of the world's fastest motor cycle road race. Last year the 500cc race was won at over 90mph and Guthrie, in practice, lapped at almost 96mph. Would the magic figure of 100mph be achieved this year? This was the question. An increase of 4mph in lap speed seemed not unreasonable with the improvements in the road surface, the advent of spring frames and a year's work on engines. The factory stables, however, scouted the idea. Works men pointed to the nature of the course—those five very fast miles from the start to Dundesert Bridge, with the right-hand turn at Bally Hill as the only check on real speed; more fast going to the right angle at Thorn Corner; the very sharp left turn, followed by a twist to the right, at Aldergrove—yes, quite a number of corners, several humpy bridges and getting on for two miles of the 'Colonial Section', which is like a twisty country lane, but more than seven miles of the Clady Straight. 'So much depends upon maximum speed that 100mph is out of the question this year,' said those in the know. 'Maximum speeds have not increased sufficiently.' As it turned out the 500cc lap record was not beaten, though that for the 350cc race was raised almost 4mph by JH White (349cc Norton) and for the first time topped the 90mph mark, his speed for the' lap being 92.13mph. For a 350 such a speed is little short of amazing...Foster starts the last lap with a clear two seconds in hand. The pointers go round their dials almost as one. At last the stretch from Clady to the finish. They are side by side. They cross the line side by side. 'A dead-heat!' cry some. What does the judge say? The decision is announced. Wood has won! Officially he has won by one-fifth of a

second. That is the shortest period of time the time-keepers' watches will record. It is said, however, that the true difference was nearer a two-hundredth of a second. And thus ends the 'Ulster'."



"Who has won? The thrilling finish of the 250cc race. The Judge's decision was that S ('Ginger') Wood, No 81 was the winner, and AR Foster, also on a New Imperial, was therefore second."



"This picture of FL Frith (499cc Norton), winner of the 5OOcc race, heeled over at Clady Corner is interesting for more than one reason. Note how Frith is still on the mudguard pad and has not got into the saddle even for this right-angle corner. A screen consisting of gauge made from tine brass wire is fixed behind his front number plate.

"MANY YEARS HAD PASSED since my last visit to the rugged Cornish coast, and to say that I was thrilled at the prospect of seeing it again would he putting it mildly. I had decided on my destination before setting out, and it was a spot quite unknown to me. And now I must pass on from Sussex to Cornwall. It was a grand run down. Well over 200 miles were covered since the early morning start, and it was nearing noon when I arrived. Already the tang of the sea was in the air. But were there going to be many trippers? I hoped not, as I was in the mood for solitude; anyway, judging by the map, it appeared to be an out-of-the-way spot enough. Such were my thoughts as I reeled off the last remaining miles. Soon the road deteriorated into a rough lane, which wound its way down the hillside between high banks. I rode through a gateway and the track ended on a grassy plateau. As the model was propped against a bank, I glimpsed foaming white breakers and golden sands down below. It was a magnificent day. A keen north-easterly breeze was blowing and the sky was flecked with cumulus clouds, casting sunshine and shadow over the land and sea. After discarding coat and waders I charged down the steep path full of the joy of living. A wonderful panorama was unfolded. Rugged cliffs towered skywards; great jagged rocks ran out into the greenblue ocean, and down the middle stretched the golden sands. What a perfect little bay! How lucky, I thought, is the Cornishman having all this virtually at his doorstep! But not a soul was to be seen. After exposing some films and thoroughly exploring the place, a sheltered spot was found under a rock, and sandwiches and Thermos unearthed from the rucksack. Hunger satisfied, I stretched myself full length, revelling in the heat of the sun and breathing in the ozone. And so the time slipped by. No one came to disturb my peace.



The only sounds were the cries of seabirds, the trickle of water down the cliff, and the pounding of the Atlantic on the surf. All too soon, it seemed, the sun started sinking, and gradually it disappeared in a blaze of glory. I shivered, and scrambled over the rocks and up the stony path to the plateau. Up there I turned and waved adieu to Cornwall the beautiful. A kick on the pedal and the engine burst into life. In the dusk I rode carefully up the trials-like hill. From the top a run of a few miles brought me to a little thatched, white-washed inn. Inside a log fire crackled in the open fireplace, casting light and shadow over the oak-beamed room. I was more than ready for the king of suppers which was very soon prepared, to be washed down with West Country cider at its very best. Then a chat with Mine Host, and so to bed to sleep the sleep that only a day such as this can bring."



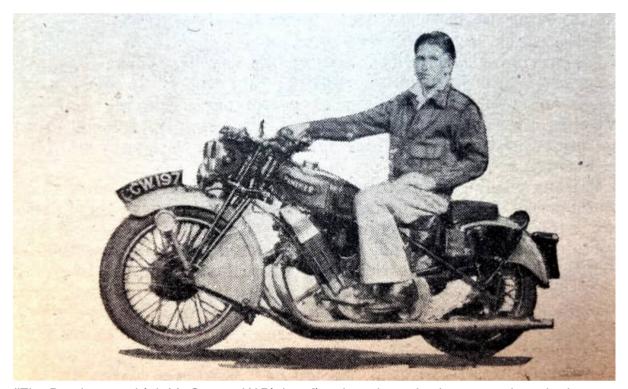
"The only sounds were the cries of seabirds, the trickle of water down the cliff, and the pounding of the Atlantic surf."

"LAST YEAR, FOLLOWING reports that the parking places at two popular resorts had been closed to motor cyclists, we printed a few words of advice—don't warm up the engine in a noisy fashion before leaving one of these parks. Bognor was the last town to impose a ban—I say 'was' because after a reader sent us details a short time ago we got on to the RAC, and the result has been that the ban has been lifted. The parking place concerned—the Esplanade Car Park—is near the bandstand, which makes it doubly important that reasonable silence should he maintained. Now it's up to you..."

"THE AUSTRALIANS REGISTERED their most smashing victory when they trounced England by a margin of 38 points in the fifth Speedway Test at West Ham last week. The old 'roo' for once surpassed itself, while the lion was, on the whole, not up to par. But the Australian Kangaroo made its unprecedented hop too late, for England had already won the rubber, or regained the 'Ashes', having won three out of the first four matches of this year's series. But did that matter? The fact that there were over 50,000 people there to see the fun rather argues that it didn't. What does it matter who has the 'Ashes'? They knew that there would he some fine racing, and that's what they went to see."

"I ENCLOSE A SNAP of my machine, to which I have fitted valances on both front and rear mudguards. These are of sheet zinc and finished in green to match the guards. Under the sump is fitted a splash-pan, the front of which is raised two inches above the height of the bottom end of the front mudguard. The width of the pan is 12½in, and it runs as far back at the rear guard permits. On a wet road one can ride without the slightest splashing from the front tyre. As regards side-winds, it is safe on a heavy

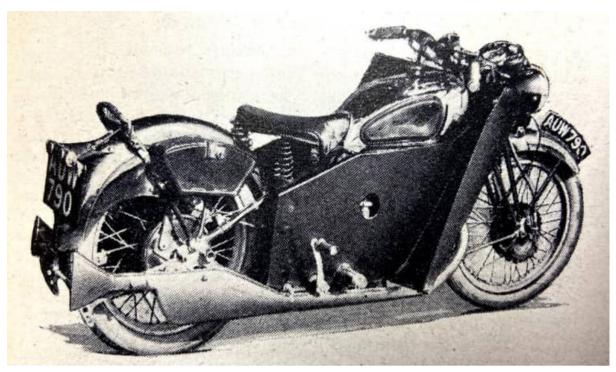
machine, but on a lightweight I should advise a perforated side valance. **George W Riches**, London, NW4."



"The Panther to which Mr George W Riches fitted mudguard valances and a splash-pan." Note the optional twin-headlight assembly.

"I READ WITH INTEREST the letter from Mr Riches about his Panther machine. Evidently, like a lot of us, he is striving for cleaner motor cycling. So long as manufacturers supply only motor cycle chassis, I suppose we must fit the bodies ourselves. I venture to prophesy that in a few years' time motor cyclists will be no more prepared to ride totally exposed machines than motorists are to ride in a box on a four wheel chassis. I enclose a snap of my own 600cc Redwing, which I have been riding for two years. Contrary to the experience of Mr Riches with his mudguard flaps, I have had absolutely no. trouble from side winds or from side gales either. The whole body was specially made for me at a cost of 50s; surely manufacturers could introduce the thin end of the wedge by listing a similar device for their standard products at a cost still lower than this. What about it, manufacturers? But please, not on a pipsqueak!

GH Illingworth, Harrogate."



"At a cost of 50s Mr GH Illingworth obtained this effective enclosure of his 'Redwing' Panther."

"I RIDE A MOTOR CYCLE and always wear trousers,' said a young woman who was reproved for appearing in trousers at Bradford City Court."

"TWO MOTORISTS WHO attempted to race the tide when crossing the sands between two islands in the Bay of Biscay were overtaken by the sea and drowned last week."

"THE EFFICIENCY OF MODERN MACHINES has killed one sort of day out which we veterans revelled in years ago. We would compile during the year a list of unclimbable or formidable hills in correspondence with various pals, and ultimately devote a day to visiting the climbs in some given locality. Hart-Davies invented this particular sport, and in company with Hulbert of Triumph's, Dr Rafferty of Daventry, and one or two other kindred spirits, would make long Saturday-lunch-to-Sunday-midnight streaks across our Island to see if this or that hill would surrender to their single-geared belt-drivers. I had one friend, resident in a hilly corner of England, who used to devote the entire winter to ransacking his area for freak hills, ready for my annual visit. I remember making some 30 separate attempts on one of his freaks, which always set up hopeless beltslip or pulled the belt-fastener out, until finally I had a special endless belt made without a joint, stretched it until it just fitted the desired pulley gearing, and at last went up clean! Mercifully, nobody unearthed Screw Hill or Simms in those far-off days. Otherwise, we should all have broken our necks or died of heart failure. Dr Rafferty was wiser than some of us. He always advised that on such hill-hunting expeditions we should use pedal-less machines; and that if the bus simply wouldn't go up under power we should turn back. Lots of the early riders injured themselves for life by reckless pedalling and pushing on hills, especially in trials."—Ixion



"Where the rainbow ends', a Panther outfit in charming disguise, won the first prize in its class at the Llandrindod Wells Carnival. The owner is Mr R Facey, Secretary of the Builth Wells MCC."

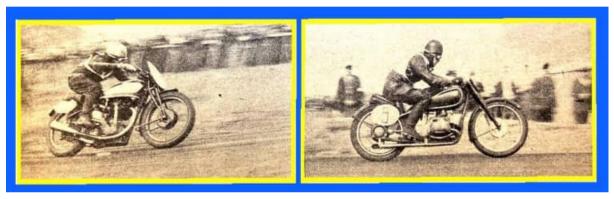
"I DESPAIR OF HUMAN intelligence once in each year when the road accidents are reported in detail for the last complete year. They are always and entirely vitiated by our complete ignorance of the mileage covered by the various vehicles. In spite of the unkind things said about motor cyclists by a Press which derives no income from motor cycle advertisements, motor cyclists killed fewer pedestrians in 1935 than pedal cyclists killed; and motor cyclists were only responsible for some 6% of the total pedestrian deaths. On the bare figures every other form of road vehicle except cabs and horse-drawn vehicles kills more pedestrians annually than motor cycles kill. All this is true. It would still be true (excluding the 6%) if there were only 20 motor cycles all told in Great Britain. 'Very Well,' says a critic, awaking from his sleep, 'let us work out the respective numbers of private cars, motor coaches, lorries, motor cycles, and pedal cycles in use in this country, and see if any type of vehicle is specially lethal in proportion to its numbers' 'Wait a bit,' says critic No 2, 'That doesn't go far enough. A motor bus is on the road all day and every day; it covers perhaps 30,000 miles a year. Lots of motor cycles are not licensed for all four quarters, are little used in the winter, and perhaps mainly used at weekends even in summer. A motor cycle's average annual mileage probably is not more than 5.'True; but we have no data about the mileage of any of these vehicles. We don't even know how many cycles are in regular use. To coin a word, we can only discover the 'lethality' of a given vehicle if we know (a) how many

people that type of vehicle kills a year; (b) how many of these vehicles are on the road; (c) their joint total mileages. Knowing these three facts, we could compare a motor bus and a motor cycle in terms of 'lethality'. As things are, we remain ignorant of a fundamental statistic; and our figures are consequently all but worthless. At any rate, they are so incomplete that it is sheer folly to paint any type of vehicle as specially dangerous."—Ixion

"IN SWEDEN LAST SUNDAY something of a very unusual nature occurred. The Senior Nortons, which we have come to regard as virtually unapproachable, were soundly beaten by two exceedingly swift—almost supernaturally so—BMWs. These two supercharged German machines were obviously completely at home on the particularly fast circuit used for the Swedish Grand Prix. The one consolation lay in the walk-over win of Freddy Frith (Norton) in the 350cc race. In this latter event EA Mellors (Velocette) finished second, with the Swede, Bagenholm, on a works Norton, third. The 250 event was won by W Winkler (DKW), with 'Ginger' Wood (New Imperial) second, and another DKW, in the hands of H Hausler, third. Otto Ley (BMW) was the winner of the 500cc race, while the second man was Karl Gall (BMW), newcomer to the road-racing world. Jimmy Guthrie and JH White, on Nortons, were third and fourth respectively. The Saxtorp circuit is situated in the south of Sweden, near Malmo. It is roughly nine miles in length and triangular in shape, and lies in flat country For the most part the surface is excellent, although two short stretches and one long one consist of what may be described as water-bound macadam topped with sand and grit. The inclusion of these dusty stretches of road caused the riders to think very hard, although they seemed to make very little difference to the speeds The start was from the Saxtorp leg. From here the going was very fast, with several sweeping bends, for three miles. Then at Dösjöbro the riders had to turn sharp right for Lyckan and Djornstorp, where another right-hand turn took them into the long 'home' straight, back to the start—but not before a series of loose-surfaced S-bends, scarcely 200 yards from the pits, was tackled. Thousands must have camped out during the night in the many pine woods through which the course passed. By midday the crowd had reached prodigious proportions—later it was announced that 200,000 were in attendance. In the royal box the Crown Prince of Sweden sat with Prince Harald of Denmark and the Princesses Alexandrina and Theodora. Curiously enough the pits were controlled by the police who, knowing nothing about racing matters, were far too zealous in their ignorance. It was almost laughable to see Joe Craig, head of the Norton pit, being told in heated Swedish by an incompetent and infuriated police-man, who obviously felt his dignity was at stake, to clear out of the pits and join the spectators. Luckily an English-speaking official saved the day. But many other pit attendants came across the same difficulty, although it was a long time before the race was due to start.



"The beginning of a gruelling 234-mile ride. The flag has dropped for the start of the 500cc race. From left to right in the front are R Sunnqvist and A Linder, on Husqvarnas, and Jimmy Guthrie (Norton)."



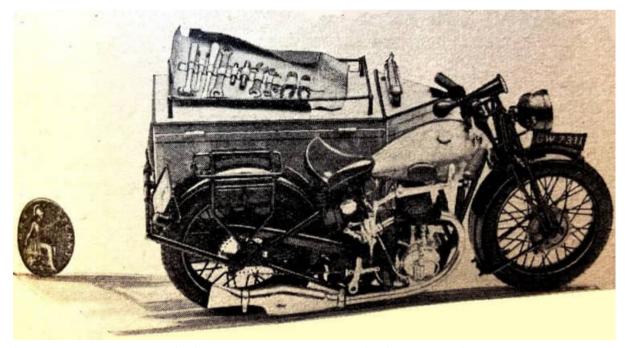
"A study in riding positions adopted by the star riders in the Senior and Junior races: FL Frith (349cc Norton) and Otto Ley (494cc BMW)."

"THE SWEDISH GRAND PRIX marked the close of what we in this country generally look upon as the road-racing season. The time has therefore come to take stock of the position and see just how much British riders and British machines have achieved. In the TT and Ulster Grand Prix, all three races in each case were won by Britain. These, however, are events on our own ground; what of those on the Continent? The five races which in these days are looked upon as of outstanding importance are the Grand Prix of Europe (this year the German Grand Prix), the Belgian Grand Prix, the Dutch TT and the Swedish and Swiss Grands Prix. In the 500cc class of these events four out of the five races were won by Norton riders, Germany winning the Swedish, race. In the 350cc class Britain made a clean sweep, Nortons gaining four wins and Velocette one. Of the 250cc events three went to Germany and one each to Italy and Britain, the successful British make being the Excelsior. Thus, in these seven most important races, Britain has won six 500cc events, all seven in the 350cc class, and three in the 250cc class—16 out of 21. It is an achievement of which the makers and riders concerned, and the country as a whole, can be justly proud."

"DOES NOT THE RESULT of the Swedish Grand Prix show us exactly where we stand in motor cycle design? As a motor cyclist who sells motor cycles for a living, I am anxious about the stagnation in design of our machines, and I think it is high time that we got down to it and made a motor-cycle which would regain our prestige. It does not need a technical man to see that the foreigner is ahead of us in design, and if we don't soon catch up to him we shall lose our export trade. So wake up, Mr Manufacturer, and back up one of our few bright designers (names supplied on request), and let's keep the Tourist Trophies in Britain.

CH Lewis, Rickmansworth, Herts."

"ON THE CONTINENT word has gone around that the road-racing racing BMWs are capable of approximately 130mph. As yet, it is said, these 'blown' jobs have not shown their true paces, chiefly because it has not been necessary. That they do not navigate too well on twisty going, and that gear changing with the type of foot-change box employed is not too good, are points that are stressed, but it is claimed definitely that these machines have just on a dozen miles an hour in maximum speed in hand on the best 'unblown' singles. That the margin is so great comes as a surprise to me and probably to others as well. The man who told me about the performance of the latest BMWs maintains that it is merely stupid trying to get more from the 500cc unblown single. 'Why do it," he asks, "when you can straight-way get ten or twelve miles an hour on maximum speed by using a 'blown' twin?'. "

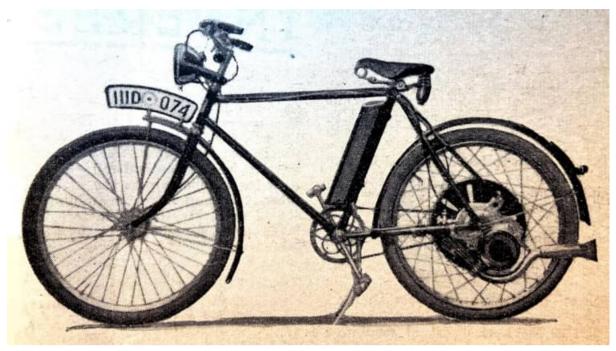


"A model cavalcade. This tiny model of an AA patrol's sidecar outfit was made by Bassett-Lowke Ltd for the Society of Motor Manufacturers and Traders. It forms part of a model cavalcade of motor vehicles on show at the Government Pavilion at the Empire Exhibition, Johannesburg."

"THE SLOUGH MAGISTRATES agreed to remove the suspension on the driving licence of a car-owner last week provided he bought a slower vehicle."

"HAVE YOU EVER PICTURED yourself as a member of an experimental department deputed to test hush-hush models? The life when new models are on the stocks as not all beer and skittles. A huge mileage most be put up in the shortest possible time, irrespective of weather conditions. Night and day the work goes The saddle is still warm as tester relieves tester. Last week in the BSA experimental department I was shown a log. In 14 days one of the experimental machines, the forerunner of a model thousands will ride in 1937, covered no fewer than 10,000 miles. Divide 10,000 by 14, and you will gain some idea of the life of the men on experimental test." (It works out to 714 miles a day.)

"TO BE ABLE TO convert an ordinary pedal cycle into one with an engine unit without any major alterations would at first appear to be an idle dream. But it would seem that a really simple conversion is now possible. Herr W Hartman of Stuttgart has designed and built an extremely simple unit in which a 63cc two-stroke engine is carried on the hub of a specially designed rear wheel. The rear wheel, which is fitted with normal cycle gearing on the right-hand aide, is specially built to carry the engine unit. There is a large drum, in appearance like a brake drum, which enables half of the bulk of the engine to be carried inside the wheel. This drum also serves as a fan which directs air on to the cylinder. The stress imposed by the turning movement of the engine is taken on the strongest part of the cycle frame—at the top of the seat tube—by means of a springloaded telescopic tube. Thus the engine is free to pivot slightly about the hub and so absorb road shocks and snatch at low speeds. The tiny two-stroke engine is carried horizontally. The drive is transmitted through a multi-plate clutch and spirally cut gear pinions. Ignition is by flywheel magneto which also incorporates a dynamo. It is possible to remove the rear wheel complete with the engine in very little more time than it takes with an ordinary cycle. All that is necessary to convert any bicycle into a motor-assisted cycle is to fit this rear wheel-engine unit in the place of the normal rear wheel, and to mount a petrol tank to the seat tube. Speeds of 30-35mph are claimed on the level, while gradients of 1 in 12 can be climbed without pedal assistance; 170mpg is also claimed."



"A normal German-type pedal cycle equipped with the Hartman rear wheel and engine unit. Note the position of the fuel tank."



Steyr Daimler Puch broke with its lightweight two-stroke roots. The Puch P800 's 792cc side-valve flat-four lump developed 20hp at 4,000rpm to give a claimed speed of over 75mph, or 60 with a chair.



The Indian four had a makeover—the established IOE valve layout was reversed to EOI; the 1,278cc twin, driving through a three-speed box, gained enough extra power for a ton-up performance.

AFTER 20 YEARS with Indian, Al Crocker launched a 1,000cc V-twin that blew Harley Davidson and Indian into the weeds. It was the first ohv American roadster (Indian had made a few ohv 750cc racers 10 years before). Contemporary reports claim 56hp, 110mph and an 'all-day' cruising speed of 90mph. Any Crocker rider who lost a race with an Indian or Harley was promised a full refund. Crockers were built to order; one with a capacity of nigh on 1,500cc. Paul Bigsby, who designed many Crocker components, recorded 128mph on his Crocker at the Muroc Dry Lake Speed Trials; a stripped-down model bored out to 1,500cc with 12.5:1 compression reportedly hit 150mph. Wartime material shortages and the low-rate/high-cost production process killed off the company within six years—About 200 were made and no more than 70 have survived into the 21st century. In 2019 one of them sold for \$704,000.



The Crocker was only in production for five years. Survivors are among the most valuable bikes on the planet.

ADVANCE DETAILS OF NEW MODELS

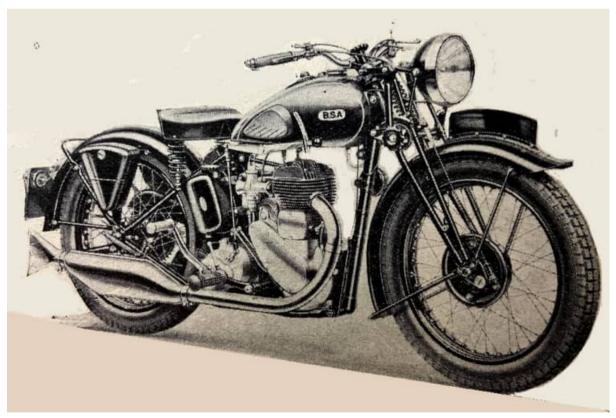
## Entirely New B.S.A.s

Single=cylinder Range Completely Re=designed : Side= and Overhead=valve Singles and Twins with Many Interesting Features : "Empire Star" Models with Specially Tuned Engines



"WITH THE EXCEPTION OF the 750cc twin, which was new last year, and the 1,000cc side-valve twin, every machine in the BSA range is entirely new. This statement does not imply that the makers have discarded all the well-tried features which have done so much to earn for them the high reputation which they enjoy, but rather that these features have been embodied in a new and thoroughly up-to-date range of models of outstandingly new design. For 1937 the models may conveniently be split into three groups, the lightweight, consisting of purely solo machines, the medium for solo or sidecar work, and that of the twin. There will be three Empire Star models fitted with specially tuned engines of 250, 350 and 500cc, but the air-hardened cylinders fitted to last year's Empire Stars have proved so successful that they will be incorporated in all overhead-valve engines except the 250 and 350cc sports models. In the lightweight group there are Models B20, 250cc side-valve tourer; B21, 250cc ohv sports; B22, 250cc

ohv Empire Star; B23, 350cc side-valve tourer; B24, 350cc ohv Empire Star; B25, 350cc ohv competition; and B26, 350cc ohv sports. The medium group comprises Models M19, 350cc ohv de luxe; M20, 500cc side-valve tourer; M21, 600cc side-valve tourer; M22c 500cc ohv sports; M23, 500cc ohv Empire Star. There are only two twins, the Y13, 750cc ohv, and the G14, 1,000cc side-valve. Full dry-sump lubrication is fitted to all singles and the 750cc twin. All overhead-valve engines have single-port heads as standard, and in order to comply with the anticipated silence regulations very large and carefully designed silencers are fitted. On the ohv 500s an absorption-type silencer having a 'nutmeg grater' interior is employed. Two-port heads with high-level exhaust pipes can be supplied at an extra charge on all 350 and 500cc models; low-level exhaust systems are standardised in all other cases." The transformation of the BSA line-up was down to its new designer, Val Page, who had revamped the Triumph range and was the brains behind Triumph's 6/1 650cc ohv vertical twin. After new Triumph boss Edward Turner fired him, Page was snapped up by BSA. His credentials could hardly have been more impressive, having joined JAP in 1910, Page, more than anyone else, was responsible for the world-beating range of JAP singles and V-twins. [Having come up with Beeza's ohv 'B' models and sv 'M' models Page would go on to put his 6/1 experience to good use in the post-war A10 range of 500 and 650 vertical twins including the A10 that sits in my garage next to my M21. Thanks, Val—Ed

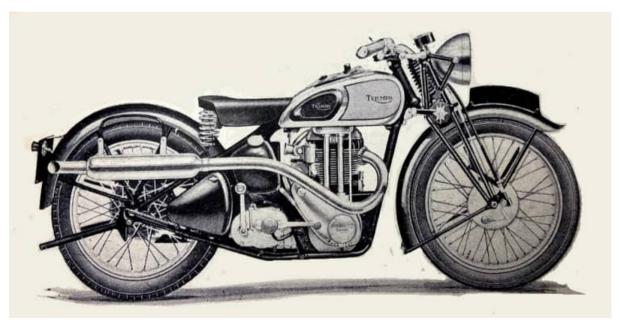


"Made in 500cc and 600cc sizes, the sturdy side-valve 'Tourer' has a cradle frame and an interesting type of valve enclosure."

## A New Triumph Completely Redesigned Engines, Programme

Completely Redesigned Engines, Frames and Gear Boxes: "Tiger" and De Luxe Models Improved in Appearance and Performance

"IN SPITE OF THE mid-year introduction of three highly successful Tiger models, Triumph design has again gone right ahead. For 1937 there is to be a new range—new frames, new forks, new gear boxes, improved engines and improved appearance. The range is based on two models, similar in many respects, but differing in the weight of frame and fittings and in detail specification. Actually the 497cc Tiger 90 may be taken as typical of the firm's products. Its engine has been redesigned, and although the lower half has the same substantial all-steel crank unit, with double-ball bearings on the drive, side, the upper part of the 'works' is quite new. The single-port head and the cylinder have been modified to ensure a sound head joint which is little subject to distortion even if the joint be re-made by a tyro. The head is arranged so that the whole of the valve gear is enclosed, the rockers being threaded into a one-piece aluminium housing, and held therein by hardened steel pivot pins."



"Typical of the new Triumph range, the 497cc Tiger 90 has a redesigned engine and gear box, while an entirely new range provides a much lower riding position."

BEHIND THE SCENES Triumph was in turmoil. Having lost a shedload of money in its venture into car manufacture the Triumph Motor Co had sold its bicycle plant in 1932—now it decided to sell its motor cycle business too and that could have been the end of

the Triumph story. The Green 'Un reported: "The Board of Triumph Co announce that as from 31 January 1936 the manufacture of motorcycles will discontinue. This action is a further step in the reorganisation of the company... Machines sold prior to this date will continue to be serviced by the company and spare parts will be available. The entire activities of the company are being concentrated on the new range of Gloria cars at the new works recently purchased." Fortunately, for the future of British motor cycles, it was snapped up by Jack Sangster, the engineering and finance number 8 hat behind Ariel. Sangster's first move was to bring back Triumph founder Siegfried Bettman, helping convince the motor cycling world that Triumph had a future. And to reinvigorate the Triumph range he moved two number 8 hats from Ariel to Triumph: Edward Turner, as works manager, and Bert Hopwood, as designer. However, Turner sacked another great designer, Val Page, who has joined Triumph in 1932 and was the brains behind the model 6/1 650cc ohv vertical twin. He had also begun to streamline Triumph's range from 18 models to eight, based on the 'modular' 250cc 2/1, 350cc 3/1 and 500cc 5/1 singles. [Page wasn't out of work for long—Triumph's loss was to be BSA's gain.] To get Triumph back in the black Triumph slashed wages—as Sangster had already done at Ariel—and made cosmetic changes to Page's range of singles, which were relaunched as the he 250cc Tiger 70, 350cc Tiger 80 and 500cc Tiger 90 (the model numbers referred to their guaranteed top speeds).

### Black and Gold James

A Well=finished Range of Villiers=engined Two=strokes for 1937

"FOR 1937 EVERY JAMES model will be powered by a Villiers two-stroke engine. Apart from this, few alterations have been made to the general specification. As regards finish, however, there has been a marked change, for the green panels have given way to a workmanlike black finish, with a broad gold-leaf line round the panels, and a new transfer of more artistic design. Also, the black wheel-rims are lined with red. Every James machine is fitted with electric lighting, either by means of a separate dynamo or by the Villiers direct lighting system and battery parking light. Speedometers may be obtained for every machine in the range at a modest extra cost. All those models which are provided with a separate dynamo for lighting purposes have automatic voltage control, and the dynamos will be driven by endless belts, adequately protected by metal shields."

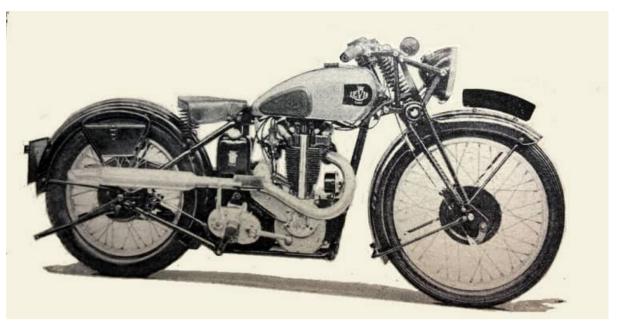


"The 196cc Villiers-engined Model I12 James has a de luxe specification which includes a loop frame, tubular central-spring forks, a separate dynamo, and legshields."

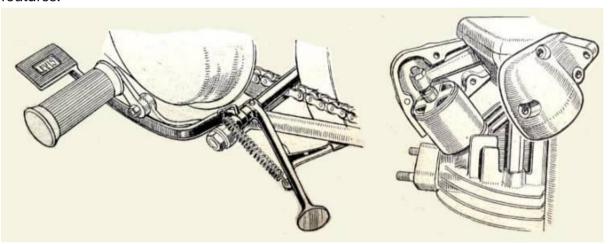
#### Levis Introduce a Big Single

Overhead=valve Six=hundred with Several New Features: Single= and Two=port Models of 250, 350 and 500 c.c. and Two Two=strokes

SEVERAL FEATURES NEW TO Levis design are incorporated in the new big single of 592cc (82x112mm). In the main the machine is characteristic of Levis productions. The first new point to strike the eye is the fully enclosed valve gear. The cast-iron rocker box is similar in layout to that of the smaller models, but where the rocker protrudes through the sides there is bolted on a domed aluminium casting, split vertically and held together by three screws. This dome is machined internally to grip the upper end of a pressed-steel thimble, which surrounds the valve springs and is held in place by the valve guides. This arrangement is simple, neat and effective."



"The new 592cc Levis has the valve gear fully enclosed and incorporates several novel features."

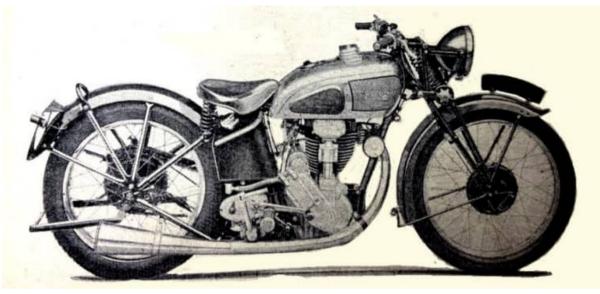


"The Levis central prop-stand is of sturdy construction. Note also the long brake pedal." (Right) "How the valves are enclosed on the new 600cc Levis. The arrangement is simple but effective. It is also employed on the 'D Special'."

#### Excelsior "Manxman" Efficiency

Racing Practice Followed in Range of High=efficiency Machines with Modified Lubrication System: New "Manxman Special" Introduced: Standard Overhead=valve and Two=stroke Models

"ALTHOUGH THERE HAVE BEEN modifications to most of the machines in the Excelsior range, major changes have taken place only in the Manxman models. These changes affect all three sizes, but the 250cc model has one alteration Peculiar to itself in that the bore and stroke have been altered to  $67 \times 70.65$ mm (249cc)—the same as this year's racing engine. This has enabled larger valves to be employed, and has lowered the piston speed at any given rpm, and the engine is now a better, all-round performer. All the Manxman models now have a frame exactly similar to that which has been so successful during the past racing season. The top tube is  $1\frac{1}{2}$ in in diameter and the front down tube  $1\frac{3}{2}$ in. a one-piece, cradle being brazed into position below the engine and gear box. Short, straight seat and chain stays ensure rigidity in the rear frame."



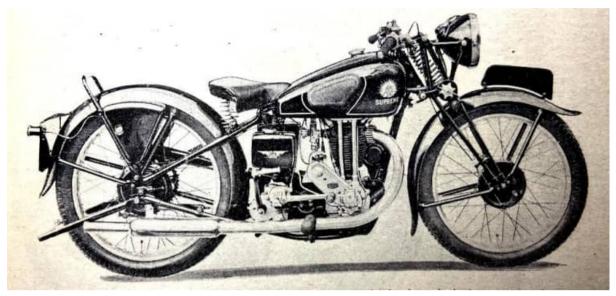
"Important modifications have been made to the 500cc Manxman engines for 1936, while the frame employed is now exactly similar to that used in recent road races."

## Variety in O.K. Supremes

Two New Models Added to Range of Side=valve, Push=rod and Camshaft Machines: Improved "Flying Clouds" and Special Racing Mounts

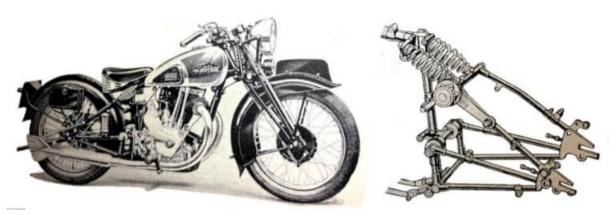
"THE OK SUPREME PROGRAMME for 1937 is a simplified one, but it still contains a wide variety of types. In view of the past experience and concentrated efforts of the makers it is only natural to find that machines of 250cc capacity are prominent in the range. It is also interesting to note the inclusion of an entirely new side-valve machine of this size. Of the other 250s there are Standard and De Luxe ohv models, and, of course, the now famous Model 70. The push-rod range is rounded off with 350cc and 500cc machines,

the latter being another newcomer. Four ohc models complete the programme; there are 250 and 350cc types in touring trim and the same type with racing specifications."



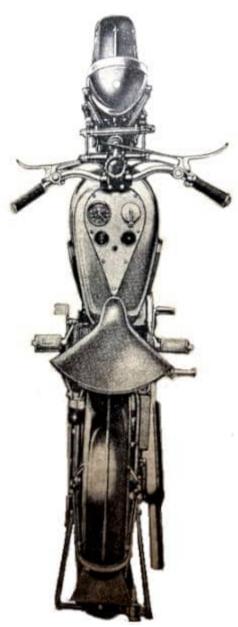
"The handsome 250cc ohv Flying Cloud de luxe model has been improved both in detail and appearance."

"IN EMBARKING ON a policy of standardisation New Imperial Motors have in view the advantages to be gained by concentrating on one basic type—increased reliability owing to concentrated experience, interchangeability of parts, and keeping manufacturing costs (and consequently retail prices) down to a modest figure. It takes courage and vision to decide on the actual design to be standardised, and in this the company has been helped to some extent by the design competition which they organised, but chiefly by past experience with models of all types. This experience covers not only road work, but also some highly successful racing. It seems hardly necessary to add that the programme is 100% unit-construction, but, in future every New Imperial will have a primary drive consisting of two gear wheels only. A single frame, sturdy but not unduly heavy, is employed for the whole range, and every frame is fitted with special lugs so that it may be supplied with rear springing at the modest extra cost of £3. In spite of the ease of conversion, the New Imperial spring frame must not be regarded as just an extra fitting, for it is a well-designed and carefully constructed job. A single spring type of tubular fork with steering and shock dampers has been standardised. Although Magdynos are standardised throughout the range, coil or magneto ignition can be fitted at slightly lower cost. A big feature is made of the 'Clubman' range. These models are claimed to be production counterparts of the racing units. In consequence the engine-and-gear differs somewhat radically from the remainder of the range, although externally there is little change."



"In its de luxe form the 500cc Model 76 incorporates a foot gear change, deeply valanced guards and a special chromium and blue finish. The spring frame costs only £3 extra." (Right) "The sturdy and well-tried spring frame can readily be fitted to any model except the 150, since the frames are supplied with extra lugs."

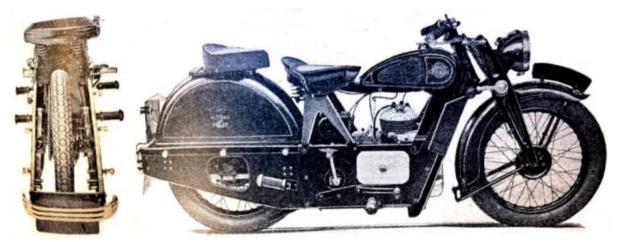
"WITH THE EXCEPTION of the 'International' machines, all Nortons have been provided with a new riding position. To obtain this the saddle has been lowered 1½ in and the handlebars have been brought 1% in. nearer to the saddle, the bars being bent in such a way as to allow the hands to fall naturally on to the grips without any flexing of the wrists. An additional feature is the employment of % in handlebars with small-diameter grips. Another important refinement is the inclusion of a constant-voltage control to the Lucas electrical equipment. This eliminates the possibility of damage to the. battery through overcharging, prevents the 'boiling' of the acid, renders topping-up less frequent and gives an extended life to the battery."



"This 'top' view shows clearly the new-shaped handlebars and the well-placed footrests and controls. The tank panel contains a speedometer and ammeter."

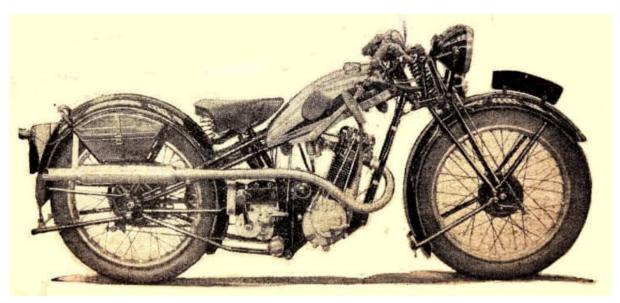
FOR 1937 THE COVENTRY Eagle Cycle and Motor Co will have two distinct ranges, one of two-stroke engined models, and one of four-strokes. The two-stroke range is complete, and although in the smaller models there is no very outstanding change, the 'Pullman' two-seater, introduced at the last Show has undergone several interesting modifications. Even at the first glance it will be obvious that the machine has been cleaned up, particularly in the region of the rear wheel. Next, one realises that the semi-elliptic springs which support the rear spindle have been moved from the outside of the chassis to the inside. By this means the spindle is better supported, yet the supporting base remains amply wide for lateral rigidity. At the front end there is a new head lug, larger and of box-girder section, so as to increase the strength to a considerable degree without any serious increase in weight. The front down members are now of channel

section instead of being composed of flat steel laminations, and the tank support rails are stayed to the main chassis members by pressed-steel members on each side of the front end. These changes have rendered the whole construction more rigid and strong enough to withstand the roughest use. There have also been improvements in the silencing system, the cast-aluminium branch pipe being arranged so that it is quickly detachable. The main ribbed aluminium expansion box is unchanged, but the outlet therefrom leads direct to a flattened tail pipe instead of to a second small expansion chamber. The deep, pressed-steel side members, detachable rear guard and pillion seat, leg-shields, and the lifting handle for the central stand remain as before. The price with a 250cc Villiers deflectorless piston two-stroke engine is £45 10s."



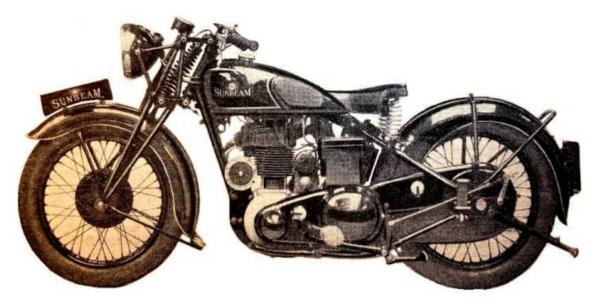
"The semi-elliptic springs on the rear spindle have been moved from the outside of the chassis to the inside." (Right) "The 1937 Pullman two-seater has been improved in detail with important modifications to the rear springing."

THREE NEW MODELS have been introduced into the Cotton range for 1937. They are 250, 350 and 500cc and have a new type of high-camshaft ohv engine. Each will, of course, be fitted with the well-tried Cotton triangulated frame. The high-camshaft engine is inclined in the frame. The Cotton-Druid front forks are fitted with a steering damper. All models have front and rear wheel stands. A three-speed gear box is standard, but a four-speed box is an optional extra. Dynamo lighting and an electric horn are supplied with all machines except the Model 1/V 150cc two-stroke, which has direct lighting and no electric horn."



"The 348cc ohv Cotton-Blackburne has the well-tried triangulated frame."

"A NUMBER OF IMPORTANT changes have been made in the design and construction of the Sunbeam range, and, apart from purely mechanical features, the appearance has been cleaned up to a marked extent, while the finish is—if possible—better than ever before. Certain features which are common to all models should be mentioned. First of all, the external gear-type oil pumps with their attendant pipes have disappeared. Although the lubrication system remains unchanged except for detail modifications, the pump gear is now enclosed inside the timing cover, and the pipes have given place to internal leads. There is no oil delivery regulator except to the rocker gear of overheadvalve engines, but an oil-pressure gauge is mounted in the tank. After a series of lengthy and careful experiments, a piston has been designed and made for each type which reduces slap to an absolute minimum, and yet does not detract from the performance. Special silencers designed on the Burgess acoustic principle, having stabbed holes and glass wool packing, are employed. And the foot-brake pivot and pedal have been redesigned so as to be neater and more satis-factory in every way. On every model the back portion of the primary oil-bath chain case is flared into the crank case casting to give a smooth appearance, and oil-bath rear chain cases can be fitted to every machine instead of the guards over the upper and lower chain runs which are standardised. The offside ends and cover plates of the four-speed foot-controlled gear boxes are finished in black, which adds materially to the smart appearance, and all machines have metal tool-cases filling the rear triangle of the frame. All models except the 'Light Solo' will come under the heading of Series II, and all have prop-stands and spring-up rear stands. Prices in every case include electric lighting (with automatic voltage control) and horn."

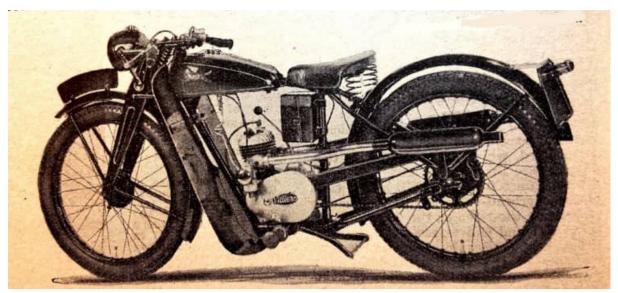


"An ideal machine for fast touring and general purpose work—the Model 9 Sunbeam. An engine of either 500cc or 600cc capacity can be fitted to this model."



L-R: "The new rocker box showing the method of valve enclosure. Valve spring enclosure and tappet adjustment on the side-valve models. Details of the Sunbeam handlebar mounting. Small rubber bands are inserted in the clips, which grip squared portions on the top steering lug."

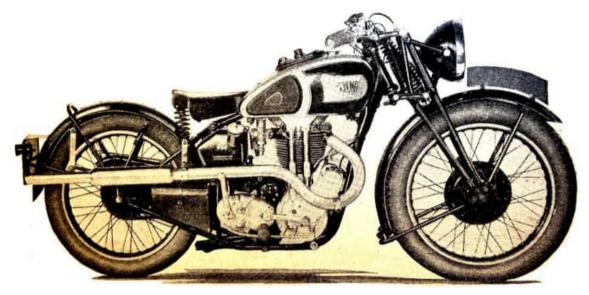
"AS USUAL, THE WOLF programme will be composed entirely of two-stroke models, sad in every case the engine is of Villiers manufacture. The Villiers 125cc engine-gear box unit was shown for the first time at the last Olympia exhibition in a machine of Wolf manufacture, but for the forthcoming show several changes have been made, and the machine is much smarter and more generously equipped. The cylinder is disposed vertically, and twin high-level exhaust pipes extend rearwards, terminating in large cylindrical silencers. The top tube of the frame is now covered by a neat saddle tank, and full-length legshields are standardised. A larger (Lycett) saddle is fitted, and the tyres are 2.75-19 (25×2.75in). Other items include expanding brakes of 4in diameter, a central stand, and an armoured toolbag on the seat tube. Lighting is direct from the Villiers flywheel magneto-dynamo. With a single-lever carburetter, and no ignition control, this is one of the simplest motor cycles to handle, yet the performance and reliability of the unit are already well proved. This model, WA10, will he available also with a 98cc Villiers engine."



"125cc unit-construction Wolf."

# Many A.J.S. Improvements

"SEVERAL IMPORTANT ALTERATIONS have been made to the range of AJS machines for 1937, and one model with the 498cc ohv single-port engine has been completely redesigned. Many of the alterations are common to all models...Valve gear on both overhead- and side-valve engines is now totally enclosed and positively lubricated. On the overhead-valve models extensions of the rocker box casting enclose the rockers and valve springs. These extensions are divided in the centre and the detachable portions are held to the main casting by two set screws. On the push-rod side of the rocker box is a large detachable plate, which is neatly ribbed in the case of the 250cc and 350cc engines. Removal of this plate exposes the tappet adjustment, and the tappet chest is large enough to allow plenty of room for the necessary work to be carried out. The tappet-chest cover is made oil-tight by a rubber seal. On the smaller engines it is held in place by hexagonal nuts, but on the 500cc models two knurled nuts are employed. The valve springs are enclosed in cups at their bottom ends, and these cups are mounted on collars, so that the springs are well screened from heat from the cylinder head. A lead from the main oil pump is taken to a point on the rocker box between the rockers and an adjustable lead from the rocker gear feeds oil to the inlet valve and guide. On the sidevalve models the tappet chest is insulated from the heat of the main part of the cylinder. The chest finishes well below the main cylinder fins, and the valve springs are carried at their top ends in thimbles, which are also clear of the cylinder fins. The valve guides project downwards into these thimbles so that no moving parts are exposed. All cylinder heads have greater cooling area and modified finning, and the the 250cc cylinder barrel are of generous dimensions. Redesigned frames of the cradle are used, with self-centring steering head bearings. The fork girder assembly has been modified to give greater lateral rigidity, and a duplex fork damper is fitted to all models. Other alterations common to the range are 3-gallon petrol tanks of new design with the latest type of thin, large-area knee grips, and handlebars mounted on trailing links and adjustable in two directions. All controls are clip-on, and no inverted levers are used."



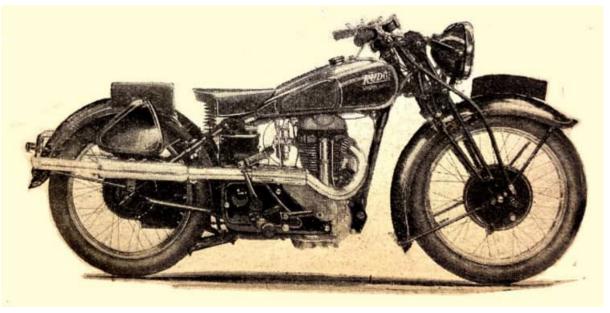
"The redesigned 498cc single-port model has clean, distinctive lines. A low-level exhaust system is optional."



L-R: "A self-explanatory drawing of the AJS valve gear enclosure and method of lubrication. One of the new cylinder heads, a feature of which is increased cooling area. The collar screening the valve spring from the cylinder head can be seen on the inlet side. These fully adjustable trailing links which carry the handlebars on the single-cylinder models considerably improve the riding position."

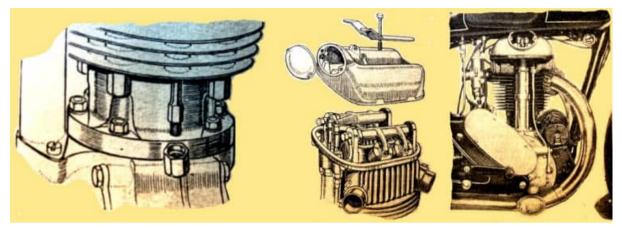
## Rudges of Distinction

"APART FROM SEVERAL IMPORTANT mechanical improvements the new Rudge models are far better lookers than ever before. The change has been brought about partly by the enclosure of the four-valve mechanism, partly by the employment of a cylinder with bolder finning (with the cylinder head nuts below the bottom fin instead of between two fins) and partly by a general clean-up in detail design. Also, the machines have a superb black and gold finish and chromium-plated wheel rims. Dealing first with the Rudge 'Special', which is typical of the larger models, the four-valve head—with each pair of valve stems parallel—has been completely redesigned. The valve gear is entirely enclosed, and the lower part of the valve box is carried on vertical cylinder fins with a clear air space through the ribs to the centre of the head. The aluminium valve cover has a large gap between the rockers, so that there is plenty of air space in the centre. There is a direct oil feed under pressure to both rocker bearings, approximately half the oil supply going to this part and the remainder to the big end. Because of this the capacity of the oil pump has been doubled. Oil leaking from the rocker gear is caught in sloping ducts and led back to the push-rod enclosing tube. Incidentally, a head which had undergone a full power test of many hours' duration showed no sign of carbon in the enclosure. Another change in the valve mechanism consists of the elimination of tappets and the substitution of push-rods which are socketed to rockers at both ends. A small detachable plate on the valve cover provides access to the adjusters and enables the push-rods to be withdrawn if necessary. The valve cover box is held down by a single set-pin via a neat spring-steel Y-piece. An ingenious feature in connection with the cylinder head bolts is that the bolts are screwed little more than finger tight into the head and have quite small heads, so that. they are capable of passing through the holes in the fins. They are, however, threaded round the heads and are held down by larger nuts that pass over the bolt heads. Thus the cylinder head can be removed sideways without detaching the tank, yet the bolts can be removed upwards if desired."



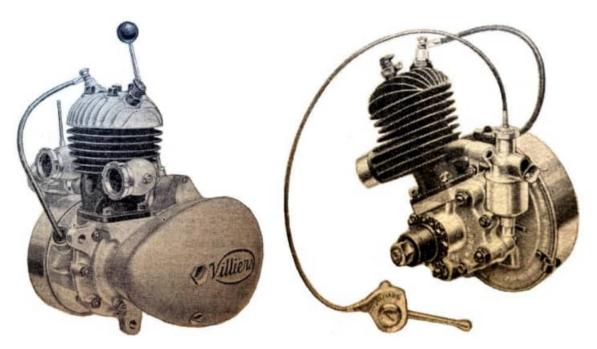
"A lightened edition of the Special—the Sports Special—has been introduced into the

range for 1937. A four-valve engine having a slightly higher compression ratio and polished ports is fitted."



L-R: "On the Special model the cylinder head holding bolts are screwed directly into the head and then firmly secured by shouldered nuts below the finning of the cylinder. The redesigned four-valve head of the Rudge Special. There is a direct oil feed under pressure to both rocker bearings. The cover over the valve gear is held down by a Y-piece. A close-up of the largely redesigned 499cc engine of the Rudge Special. There are no tappets in the new engine, the push-rods being socketed to rockers at both ends. The small plate on the valve cover (shown detached) provides access to the adjusters and allows the push-rods to be withdrawn when necessary."

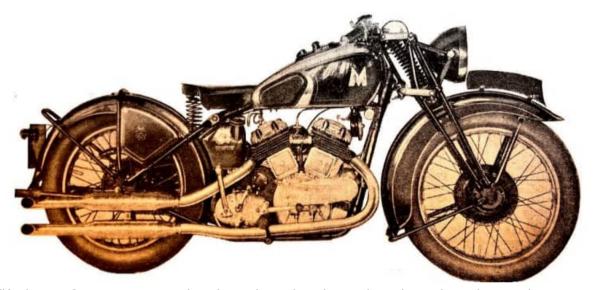
"THE LATEST RANGE OF VILLIERS engines includes no fewer than nine motor cycle units, from 98cc to 346cc, all of them beautifully made in an up-to-date and wellequipped factory. The 98cc Midget is of quite straightforward design, and is perhaps better known on the Continent than in this country. Next in order of size comes the 125cc engine, which is built as a unit with a three-speed gear. The engine is of the 'deflectorless' or flat-top piston type, in which the incoming gas is shot upwards in jets from each side, to meet and 'mushroom' outwards from the top, thus helping to expel the exhaust gas. It is a remarkably lively little unit and is rapidly making converts. The 147cc Mark VIIIC is a single-port engine with a cast-iron head. It is designed for hard work and utility. The 148cc Mark VIIC is a two-port edition with a different bore and stroke—53x67mm, as against 55x62mm. Next there are single- and two-port engines of 196cc, Marks 2E and 1E, both of which have integral cylinders and heads. There is, in addition, a 'super-sports' model of this size, with an aluminium cylinder head and twin exhaust ports. There are two air-cooled engines of 249cc, one a two-port model of normal Villiers design, but having an aluminium cylinder head (Mark XIVA), and the other (Mark XVIIA) a flat-top piston type. In addition there is a water-cooled engine of this size. Finally, there is the 346cc (70x90mm) two-port, long-stroke engine with an aluminium head."



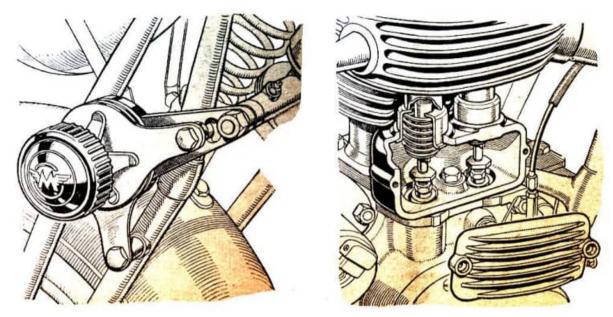
"The 125cc 'deflectorless' piston two-stroke engine is built in gear with a three-speed gear. (Right) Although only of 98cc capacity the Villiers Midget engine is a remarkably hard worker."

"MATCHLESS MOTOR CYCLES FOR 1937 will be divided into two separate ranges of machines—the Clubman and Tourist series. All models are improved editions of their 1936 counterparts and include many interesting alterations in design. The three sidevalve machines which comprise the 'Tourist range have undergone considerable change. The 246cc and 498cc single-cylinder models now have their engines mounted vertically in duplex frames. The cylinders are of new design with dwarf tappet chests separated from the cylinder. The valve springs remain totally enclosed, being located at the top ends in thimbles which extend upwards from the top of the tappet chest. Protruding down into these thimbles are the valve guides. A small air space is provided between the thimbles and guides so that the valve springs have no direct contact with the valve chest. Both these side-valve models have coil ignition and constant-voltage control dynamos, which are common to all 1937 Matchless machines. The coil is mounted horizontally beneath the battery carrier, where it is well out of the way. Fourspeed Burman gear boxes with positive-stop foot changes are fitted. The complete range of Matchless machines has foot gear-change; hand changes cannot be fitted. The duplex down-tube cradle frame has been strengthened in the case of the 250cc model, and self-aligning steering-head bearings are now used...The other side-valve model is the well-known 990cc V-twin. For 1937 this model is being produced purely for solo and single-seater sidecar work. The frame has been redesigned and is now only fractionally longer than those used for the 500cc machines. The short-wheelbase frame has necessitated a number of alterations to the engine. A separate magneto is mounted in front of the unit, while the dynamo, driven by a chain enclosed in the primary chain case, is mounted in the engine plates above, the gear box. The exhaust port design has

been considerably modified, and on both cylinders the exhaust pipes emerge almost at right angles; the cooling of the lower halves of the cylinders and valve chests is considerably improved. In the Clubman range there are high-efficiency machines with ohv single-cylinder engines of 250, 350 and 500cc capacity. All have re-designed cylinders and cylinder heads with improved finning. The rocker gear is now flood-lubricated from the main oil pump. A large, handsomely decorated cover-plate is fitted to the rocker box, and this plate is removable for tappet adjustment. The 250 and 350cc models have single-port cylinder heads, while the 500cc machines, except the Competition models, are two-port jobs. The 250cc Clubman, as standard, is fitted with coil ignition, but on the de luxe model ignition is by separate magneto mounted behind the engine. Both models have the strengthened frame and new-type forks, and, of course, four-speed gear boxes with enclosed foot-change."



"A shorter frame, new petrol tank, and neatly valenced mudguards, enhance the appearance of the 990cc side-valve twin."

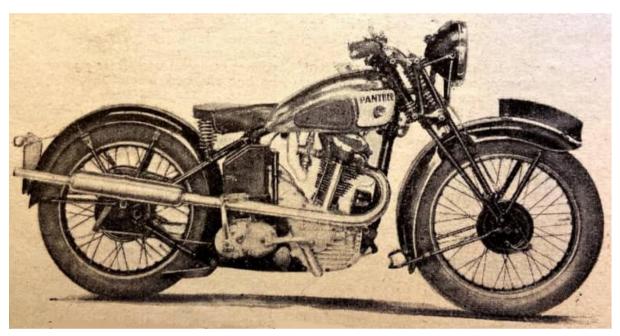


"The duplex fork damper which is now fitted to all Matchless models. The rigidly mounted metal plates will be noticed." (Right) "This sectioned drawing shows how the valve springs of the side-valve engines are insulated from the heat from the valve chamber."

"A PRE-SHOW SURPRISE is the introduction by the Coventry Eagle concern of a completely new range of four-stroke models. Three sizes will be available, viz, 250, 350 and 500cc, and in every case an ohv engine of famous make will be fitted. All three machines are identical in specification, except for the engine size and a certain amount of weight-saving in the smallest type. The frame is of tubular construction with a single, large-diameter front down tube, and a full duplex cradle running from the front down tube to the rear spindle. A straight top tube extends rearwards past the seat tube, and is joined to the top of the seat stays by special lugs. There is a second top rail, which is curved upwards to provide ample clearance for the valve gear. The seat post is located in front of the four-speed, foot-operated gear box. Tubular Webb forks are fitted, and these incorporate both steering and shock dampers. The wheel rims are chromiumplated, the mudguards are nicely flared, the rear guard being hinged; and the tyres are 3.25-19 (26×3.25in). In addition to front and rear stands a prop stand is fitted, while the rear stand includes certain neat and interesting features which cannot yet be disclosed. As regards the engine, the push-rods and rocker gear are enclosed and lubricated, but the valve springs are exposed. Lubrication is on the dry-sump principle, the separate oil tank being mounted on the seat post so as to pair-up with the battery. The latter, incidentally, is secured to its bracket with a rubber pad interposed."

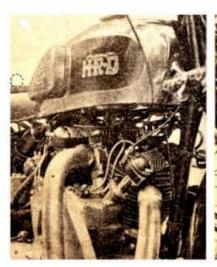
"DETAIL MODIFICATIONS OF an extremely practical nature have been made to the Redwing Panther range for 1937. The programme consists of three ohv machines— Model 90 (490cc), Model 100 (598cc) and Model 85 (348cc). The last-mentioned has a heavyweight frame and forks and displaces last year's Model 80. The most noticeable

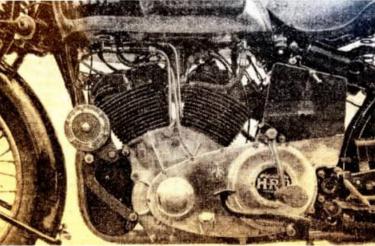
alteration applicable to all models is a new colour scheme. Gone is the familiar green panel with its leaping panther transfer; the handsome chromium tanks now have ivory panels lined in red and black, while a transfer of a panther's head is attached below the maker's name. The effect is distinctly smart, especially when viewed in conjunction with the chromium wheel rims with their black and red-lined centres."



"So compact is the new Vincent-HRD 1,000cc twin-cylinder unit that it may be fitted to a frame of quite normal proportions."

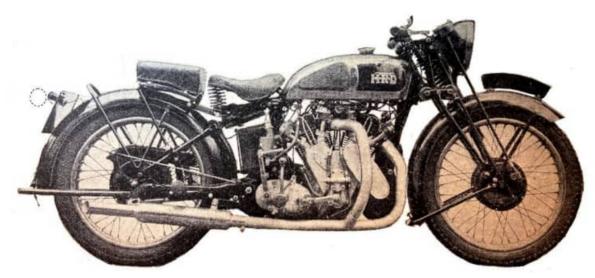
"VINCENT-HRD ARE SPRINGING something of a surprise for 1937—a 1,000cc big twin weighing only a comparatively few pounds more than the well-known high-camshaft 500. The idea behind the design is the production of an exceptionally lively, highperformance mount with the same superb handling as the smaller models in the range. Not only this, but the makers have aimed at providing a 100mph machine which is docile and does not rely upon super-tuning for its out-of-the-ordinary capabilities or require an ultra-high compression ratio. 'Springing' a surprise is the right word, since the machine, of course, embodies the famous Vincent-HRD rear-wheel springing. There is, in fact, very little difference between the new 1,000cc model and the 500cc Comet and Meteor' models, except for the engine and the wheelbase, which is only 3½ in longer— 58½ in instead of 55 in. The alteration in wheelbase has been accomplished merely by increasing the length of the top tube. In effect, the engine consists of two Meteor engines mounted on a special crank case. The cylinders are set at an angle of 47°, with the exhaust port in each case facing to the front and a separate carburetter for each cylinder. In order to save weight, the barrels and heads are of light alloy, the former with nickel-chrome liners and the latter with cast-in valve seats and plug boss. The seats and plug boss are all in one and consist of





"The exhaust port of each cylinder faces forward and each cylinder has its own carburetter." (Right) "The new unit cosists, in effect, of two Meteor engines mounted on a special crank case."

a bronze casting. This new model, the Rapide, is said to weigh between 400 and 410lb complete with 120mph speedometer, clock, electric lighting, pillion footrests and the well-proved Vincent-HRD sprung pillion seat. The price, including all these features, which are standard equipment, is £138. It will be noticed from the illustrations that no separate oil tank is fitted. This is part and parcel of the stainless-steel fuel tank, which has a new and accessible rear mounting beneath the saddle nose and is finished in black. The oil and petrol capacities are half a gallon and 3½ gallons, respectively. A gauze-type oil filter is provided on the suction side. The combined dynamo and magneto is inverted and mounted in front of the crank case. Chain drive is employed, and a special shield is provided to protect the unit. The cylinders are offset in relation to each other to the extent of 1½in, consequently the exhaust port of the rear cylinder should receive ample cooling draught. A single silencer is employed. In appearance the heavily ribbed crank case is typically Vincent-HRD. It is unusually compact and actually the crank case bolt positions are the same as on the 500cc type of case, so, if desired, a 500cc engine can be fitted without difficulty in the 1,000cc frame. The total weight of the 1,000cc unit, less carburetter and combined dynamo and magneto, is about 105lb that is roughly 20lb more than the weight of the single. As with all 1937 Vincent-HRDs, the machine has twin brakes in both wheels, quickly-detachable rear wheel, prop stand, Burman four-speed gear box, folding kick-starter, stainless steel fittings for the rear wheel, a duplex primary chain and Ferodo AS10 oil-resisting clutch inserts."



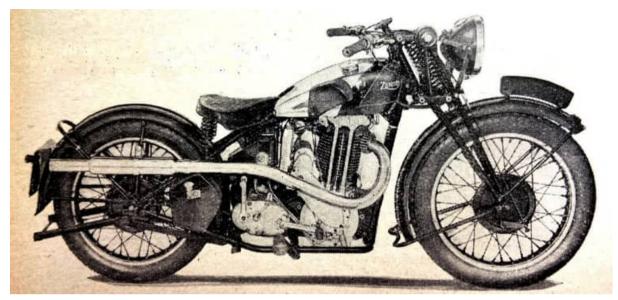
"So compact is the new Vincent-HRD twin-cylinder unit that it may be fitted to a frame of quite normal proportions."

"THERE HAVE BEEN several alterations to the 250cc Stevens in order to bring it into line with its larger brothers. For instance, the tank is larger, which gives the machine a bolder appearance. Also, the tubular silencer and fishtail have given place to an exhaust system of the megaphone type with internal spirals. Extra spirals have been fitted to the silencers of all models in order to decrease the volume of the exhaust note. Another improvement consists of a larger and stronger gear box operated by a pedal and enclosed mechanism. In common with all Stevens machines for 1937, the standard finish is black, but the tank is lined in blue and gold, blue being the predominant colour. The wheels are plated and have black centres with blue lines. The 250cc model is equipped with tyres of the same size as the larger types, viz, 3.25-19 (26×3.25in), studded rear, and 3.00-19 (26x3in) ribbed front. Further, it has the same high finish and is in every way a full-sized machine with a small but highly efficient engine."

THE BMW RANGE now comprised 198, 298 and 398cc ohv singles as well as the 494cc ohv, 745cc sv and 730cc ohv flat twins.

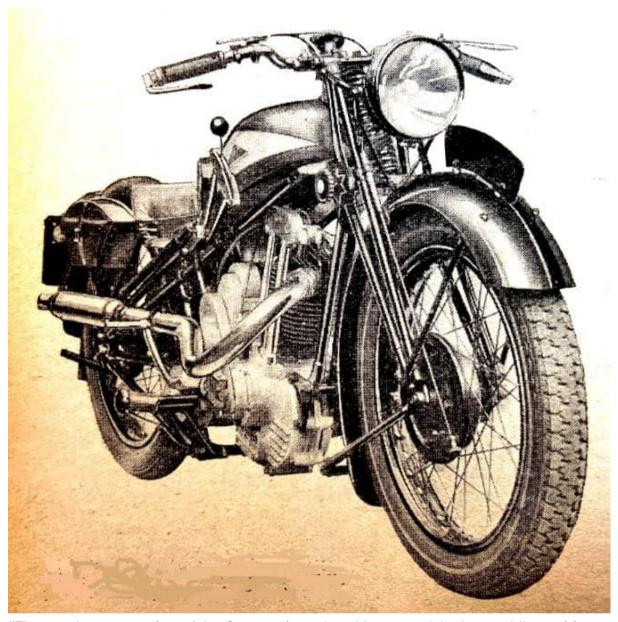
"ONE ENTIRELY NEW MODEL is included in the Zenith programme for 1937. It is a 500cc sports model and is fitted with the new high-camshaft JAP engine. This engine has a double-row roller big-end bearing with a duralumin cage, duralumin connecting-rod and steel flywheels. A special design of piston cast in low-expansion alloy is fitted. Lubrication is by dry-sump. Valves and rocker gear are fully enclosed and lubricated by a by-pass delivery from the oil pump, surplus oil being returned to the crank case. The high camshaft is chain driven and a tensioner and damper are incorporated in the drive. The ¾in pitch magneto chain also has a tensioner, and the magneto is mounted on a platform which is part of the crank case casting. A single tube encloses both push-rods. A cradle frame with Zenith-Druid forks houses the engine. Transmission is by chain through a four-speed Burman gear box with positive-stop foot-change. The primary

chain is enclosed in an oil-bath case which has a detachable clutch dome. Seven-inch brakes, front and rear, are fitted. Other details of equipment are a 3gal chromium-plated petrol tank, chromium wheels with black centres, Dunlop saddle, footrests with vernier adjustment and rubber-mounted handlebar.



"Like all the Zenith range, the 490cc ohv C5 Special has a four-speed gear box with foot change."

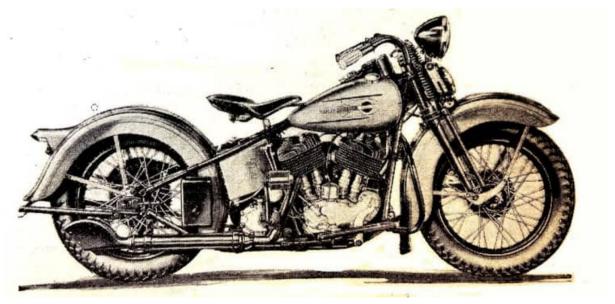
"IN ADDITION TO THE three new high-camshaft machines, five other new models have been introduced into the Cotton range for 1937. The well-known triangulated frame is used throughout the range and all models have neat saddle tanks and dynamo lighting. The three models fitted with the latest type JAP high-camshaft engines present a breakaway from standard Cotton practice, for the engines of these models are mounted vertically in the frames. These three special models also have four-speed gear boxes, and hand or foot control can be fitted to choice. Other items of the specification are Cotton-Druid forks, and large brakes with mud-protection shields."



"The sturdy construction of the Cotton triangulated frame and the low saddle position are apparent from this viewpoint."

"MANY IMPORTANT ALTERATIONS and modifications have been made to the 1937 range of Harley-Davidsons. The programme consists of four distinct models with engine capacities of 750cc, 1,000cc, 1,207cc and 1,300cc. While the 1,000cc model has an ohv engine, the remainder are side valves. All, of course, are twin-cylinder machines. The 1,000cc model was introduced during June this year, and the only alterations made to it are a slightly different transfer on the petrol tank and a redesigned carburetter air intake. It will be recalled that this model incorporates many interesting Harley-Davidson features, particularly as regards the engine. The overhead-valve gear is fully enclosed and positively lubricated [the shape of the ohv model's rocker box led to its nickname: Knucklehead]. A full dry-sump lubrication system, with gear-type pumps, is employed, and a one-gallon oil tank is mounted beneath the saddle. The engine is housed in a

sturdy duplex frame, the forks of which now have tubular instead of forged members. Transmission is by a duplex primary chain, a four-speed gear box incorporating a multiplate foot-operated clutch, and final chain drive. The speedometer, which is mounted in a panel attached to the petrol tank, is driven off the gear box. Ignition is by coil, with the distributor accessibly mounted on the timing case, behind the dynamo. The majority of the above features are also to be found in the 1,207cc and 1,300cc side-valve models, while some are incorporated in the 750cc machine. For purposes of description the two side-valve models may be looked upon as identical with the ohv model, except, of course, as regards the engine. Both have the new dry-sump lubrication system, and the loop frame has been dropped in favour of the latest duplex type. The 750cc model also has dry-sump lubrication, but instead of an oil tank under the saddle there is a compartment incorporated in the petrol tank. The loop frame of this machine is similar to the 1936 design, and the girder-type forks and three-speed gear box are retained. The new design of petrol tank, with instrument panel, is fitted, and the speedometer is driven from the rear wheel. All three side-valve models have a re-designed flywheel and big-end assembly with roller hearings, while the timing pinions, shafts and cams are now of integral construction. Although the prices of Harley-Davidson machines.in America have been in-creased by 10%, for the time being they will remain unchanged in Great Britain. The price of the 750cc model, with either low- or high-compression pistons, is £101 15s. It is obtainable in competition trim for £109 10s. The 1,000cc ohv model costs £132 10s, while the prices of the 1,207cc and 1,300cc models are £113 10s and £119 15s respectively. The standard equipment on all models includes electric lighting, combined ignition and lighting switch with lock and key, and an electric horn. Additional equipment, including safety guard, fork dampers, etc, is available at extra cost."



"With its duplex frame and shapely petrol tank incorporating an instrument panel, the new 1,200cc Harley Davidson is a sturdy and handsome machine."

"TWO NEW SIDECARS have been added to the Swallow range. The Launch Aero Coupé is just what the name implies, the main body being of the launch type, but the passenger is protected by a neat coachbuilt coupé head. This head, which is hinged to the offside of the body so as to provide easy access, has a pressed-steel top, all the corners being nicely rounded and faired off. There is a car-type roof ventilator towards the back of the roof, and all the windows are of heavy-gauge celluloid. The top is slightly vee-d in front, and in consequence the windscreen is in two sections. There is ample room in the long body, which has ventilation louvres in front and a large compartment at the rear. Chromium-plated deck rails are fitted fore and aft, and there is a plated and streamlined lamp mounted on the mudguard. This is purely a single-seater body, and is most definitely a de luxe type. To those who require sufficient room to carry a child in the dickey seat, but insist on full protection, the new Kenilworth Coupé will make a strong appeal. The lines of the body are founded on the present models, that is to say, the body has a long, gently sloping nose. It is, however, much more roomy, and there is ample space in the rear seat for a normal child of eight. The whole seating accommodation is covered by a hinged top with plenty of window space. Further, a fabric-type sunshine roof is provided, and is so arranged that the fabric can be rolled up and fixed at the front end, leaving, in effect, an open sidecar with rigidly fixed side screens."



"A new Swallow model, the Launch Aero Coupé. the head of which is hinged to the offside of the body. (Right) The Kenilworth Coupé provides accommodation for an adult and child."

"ART SENIOR, RIDING a streamlined 498cc OK Supreme, has broken the Australasian half-mile motor cycle record previously held by L Tobin (Norton). Senior's speed over one way of the course was said to be 116.8mph, and over the other way no less than 130.4mph. This gives a mean speed of 123.2mph, and since, according to the report, the run was made in fog and heavy rain, it is little short of amazing."

"ITALIAN GUZZI MACHINES swept the board in the Italian Grand Prix held recently on the fast Monza track. Aldrighetti and Tenni, between them, carried off the first two places in both 250 and 500cc events. Italy, therefore, won easily the International Speed Trophy—an international team competition—with Belgium and Germany runners-up. Stanley Woods, who was to have ridden a Guzzi, fell in practice and was unable to compete. Another unfortunate Was EA Mellors, whose Velocette 'went on strike' during practising; he rode an NSU in the race, but retired with engine trouble. Both the 250 and the 500cc events were won at extremely high speeds—the former at 92.3mph and the latter at 101.6mph. All the races were over a distance of nearly 190 miles, yet in the 500 race, Tenni (Guzzi) and Aldrighetti (Guzzi) swept over the line together. Tenni won by %sec! RESULTS. 250cc: 1, Aldrighetti (Guzzi), 92.3mph; 2 Tenni (Guzzi); 3, Pagani (Benelli). 350cc: 1, Sunnqvist (Husqvarna), 88.6mph; 2, Nocchi (Norton); 3, Grizzly (Sarolea). 500cc: 1, Tenni (Guzzi), 101.6mph; 2, Aldrighetti (Guzzi); 3, Gall (BMW)."

"BRITISH MACHINES WERE successful in winning both Junior and Senior races in the West Australian TT. In the Junior, Merralls (Red Hunter Ariel) was first, and in the Senior,. Booth, also on a Red Hunter Ariel, won in record time."

"A NEW ROAD ACROSS the Andes (South America) reaches a height of 15,885 feet above. sea-level, and thus becomes the world's highest road. It connects Lima (Peru) with Oroya."

"THE MINISTER OF TRANSPORT has refused to confirm a 10mph speed limit through Pateley Bridge. The AA and RAC strongly opposed the restriction, which was suggested by the West Riding of Yorkshire County Council."

"THE CHAIRMAN OF THE magistrates at Haywards Heath (Sussex), Lord Cautley, KC, said there could be no two views of what an Army sergeant-major meant by the word 'Halt'. Sixteen motorists were fined 5s each for ignoring the sign."

"AMID A WELTER OF 'calico-tearing' Bugattis, Maseratis, Alfa Romeos and Atlas, motor cycles provided more than a fair share of the thrills at the annual speed trials held at Brighton last Saturday. Eric Fernihough was the star of the day, for apart from winning the 350cc and unlimited cc solo and unlimited cc sidecar classes he successfully attacked his own record for the half-mile course, returning a speed of 90mph dead."

"RECENTLY RETURNED FROM the Isle of Man where he gained two replicas on his first appearance, JC Galway, riding a 490cc Norton, won the second Durban Grand Prix from the scratch mark at 70mph. The circuit is 11.2 miles to the lap, and is exceptionally twisty, with the straights few and short. A crowd of about 60,000 watched the race. The first rider to start was C Cannon (175 two-stroke James), and he went away with a fifty-minute start on the scratch man, Galway. Third man home last year, P Jackson, was second to go and H Adams, who was to set a pace for, the back-markers, was fourth."

"THOSE WHO HAVE RIDDEN in an International Six Days Trial carry through their remaining years a pack of memories without parallel or equivalent in ordinary riding. Working on the bus in torrid heat with sweat flooding your eye-sockets. Going deaf

through altitude, and sneezing to regain hearing. Wondering where your horses have gone, as height thins the air in the gas charge. Swirling round 50 successive hairpins up hill—shall I keep changing up and down, or keep on one gear? Chasing Henne down a pass and skidding surprise bends over wet, gritty, and incredibly deep potholes. Lakes so blue that they hurt your eyes. Thick, icy fog on the peaks at mid-day. Sliding through mountain tunnels at noon with the head lamp full on and eyeballs that refuse to adjust themselves to the plunge into gloom. TT-ing through narrow villages with the side lanes closed for you by ropes and ladders. TT-ing over the roads beyond, only to meet a Fiat, Merc or Lancia ditto-ing in the opposite direction on a blind corner. Dust clouds 40 feet high and a mile long. Roadside lunches at improvised snack bars. Language difficulties. The pluperfect marshal. The bullying, blustering marshal. Tent garages in heat-waves. The chill of summer rain at 8,000ft. The inferno of a freak hill in a deep-cut lane with the entire entry stalled. Losing one's way—no maps and nobody who can speak English. The nightmare of a puncture on a hectic speed schedule. And always, right at the end, the speed test—over good roads, over bad roads, over sun-sucked tar, over cobbles; over water-bound macadam, in teeming rain, and in stunning heat."—Ixion

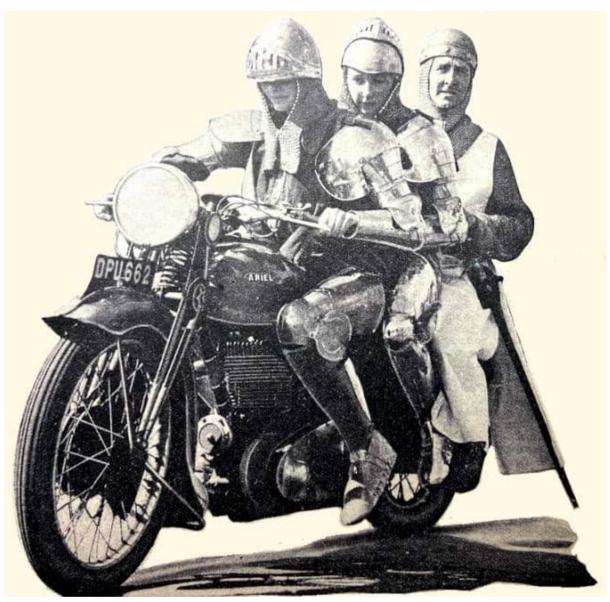
"I STOPPED THE OTHER DAY at the top of Blagdon Hill, where the view compels such a stop on any man of sense. A Calthorpe rider pulled up alongside before my pipe was finished. Discovering a brother enthusiast, he invited me to have a drink. I politely refused. 'You will drink with me,' he replied, I thought a trifle tersely. He unslung a haversack of the waterproof type and clambered down the bank to a small brook, where he filled the haver-sack with water. Its previous contents proved to consist of two halfpint bottles of Bass and a lump of ice. He promptly read acceptance in my eyes, and as he opened the doings he remarked, 'Some fellows take their liquor in stuffy bars. I buy mine at a pub along the road, but I drink it where it will do me most good; and twopenn'orth of ice improves it on a day like this.' I am now raising Cain at Benzole Villa because Mrs. Ixion seems to have sent my haversack to a jumble sale. My new-found friend had bread, cheese, and a tin of butter with him as well, and he chilled the butter before he poured the iced water away. Unluckily, the eats weren't scaled for two. I live and learn."—Ixion



"Smoke between the tapes: For a few fleeting moments the white clad figure on the bucking machine is the cynosure of all eyes. The photograph was taken at the Leiston Club's recent American hill climb."

"ALTHOUGH N0 13 DID not appear on the Southport Motor Racing Club's programme for the Championship Meeting on Ainsdale Beach last Saturday the Clerk of the Weather did not look with kindly eyes on the event. Rain fell most of the day, making conditions anything but pleasant for competitors and officials. The morning's programme was devoted to flying kilometre trials, in which the attraction was a 'Southport 100mph' Gold Badge for competitors topping the 100 mark. In all, 67 runs were. made, and the fastest motor cyclist was J Blease (1,000cc Blease-JAP Special), who recorded 111.84mph on three separate occasions. B Berry (996cc Brough Superior) made several efforts to equal this figure, but his nearest was 104.52mph. Only one other motor cyclist gained a Gold Badge—JB Moss (498cc Excelsior) who returned a figure of 103.76mph on his second attempt."

"UNEXPECTED AND MOST VALUABLE support of a point the BMCA has taken up with the Home Secretary come from Alderman Sir Phené Neal, sitting as the magistrate at the Mansion House. The BMCA has urged that it is wrong to summon a man, who is alleged to have gone fast, for three separate offences—driving to the danger of the public, driving carelessly, and exceeding the speed limit, all as the result of a single act. The BMCA has suggested to the Home Secretary that the police ought to decide upon one charge for a single action and stick to it. Now Sir Phené Neal says the same thing. In the case of a man summoned for both dangerous and careless driving he stated, 'The police ought to make up their minds to proceed on one the other before coming into court.' Inspector Crouch, of the City of London Police, replied that it was usual to issue two summonses, and, in the event of the case being proved event of the case being proved, ask the magistrate to convict on one only. Sir Phené would have none of it: 'What I object to is that the police have two shots at a man instead of one. It doesn't t quite fair.' Sir Phené ended the matter by requesting that Inspector Crouch acquaint the Commissioner with his views. Thank you, Sir Phené; thank you, BMCA.'



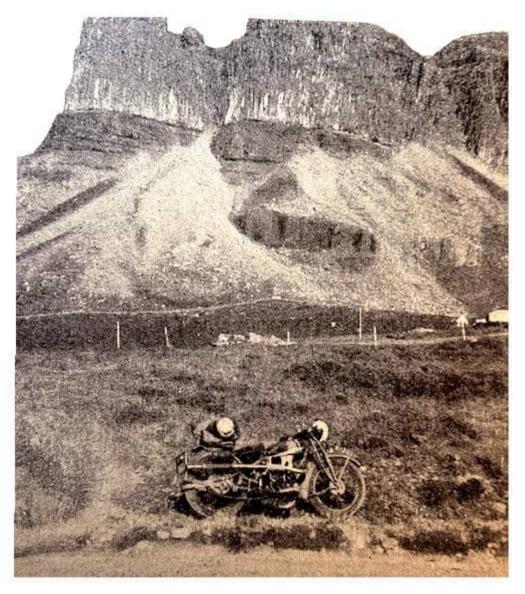
"1066 and all that. Three monarchs pose on the 'modern motor cycle' at Hastings. They were taking part in the Parade of Monarchs at the Hastings Carnival."

"JUST STRUCK A GENUINELY thrilling book with a stodgy title, 'The Invention of the Automobile', by St John Nixon. As we Britons lay no claim to having originated the motor era, we don't normally worry about its beginnings, but at one time Germans took sides for Karl Benz and Gottlieb Daimler respectively. Mr Nixon, aided by Germany's archives, has no difficulty in awarding precedence to Benz, who had his car on the streets of Mannheim as early as the autumn of 1885, while Daimler was some 18 months later. Austria has advanced claims for one Siegfried Markus, who staged a car at the Vienna Exhibition of 1873 (incidentally, this identical vehicle is still in the possession of the Austrian AC); but as Markus, like the French pioneer Etienne Lenoir, never used or developed his invention, Benz has unquestionable claims to the real honour. Benz, in spite of his epoch-making notions, was rather a wooden-headed fellow. His brain foresaw the possibilities of road transport. He grappled with the appalling problems of

producing gearing, clutch, steering, etc, in days when no suitable engine existed. And he coped with the practical problems of road testing when a glimpse of his first horseless carriage packed the streets with crowds, which might jeer or worship or denounce as the mood took them. But having produced a crude car which would cover his urban test route non-stop in the dead of night, judgment failed him, and he never developed it with the necessary vigour and flexibility of mind; consequently he never made much money out of his inventions. The best varn about him relates how the authorities limited him to 334mph in Mannheim and 71/2mph on rural roads. Karl promptly invited the local Belisha to take a trial ride with him, and bribed a milkman to gallop his cart past the car and 'cock a snook' at them. This so annoyed the Minister that he there and then abolished the speed limit! Daimler, by contrast, possessed a fluid brain and adapted himself almost too freely to changing conditions. His mind roamed in all directions. He had constructed a truly terrible motor bicycle of ½hp by November, 1885; it had a wooden frame, two small side-steadying wheels, and—actually—a free engine obtained by means of a jockey pulley and a flat belt. Daimler promptly decided that it was us eless, and dropped it like a hot coal. He then bought an ordinary horse carriage of the double Victoria type; put the front axle on a central pivot for steering purposes; mounted a tiny engine on the floor of the rear cockpit; fitted slip clutches in the rear hubs to furnish a differential action; and achieved 12mph with it. In quick succession he produced a benzine tramcar, a benzine fire pump, a benzine airship engine; a power-driven balloon, and a motor boat! The German public, terrified by the term 'explosion engine', boycotted his motor boat for fear that it would blow up, so Daimler decorated its gunwales with porcelain insulators and rubber-covered wire, and pretended that it was electric! However, mercifully for us, the failure of his boats and balloons led him to concentrate on cars, and with his vigour and ingenuity he succeeded where Benz stagnated. Two days before Benz died in 1929 German motorists staged a great parade of honour near his home, and thousands of people congregated outside his house; but the aged inventor was too weak to stagger to his bedroom window and receive their plaudits."— **Ixion** 

"ICELAND IS ONE OF the pleasantest countries imaginable for the traveller. Everything is so fresh and unfamiliar, the people are hospitality itself, and the beauty of the scenery more than makes up for the bad roads. I should say straight away that no one should travel in Iceland on a motor cycle unless he has a trials model and knows how to ride it. The roads round Reykjavik are passable, but as soon as you get into the country, rocks, mud, streams, and loose sand are the order of the day. Photographs will give you some idea of the conditions; but they cannot show the worst sections, just as they cannot show the beautiful colouring of the moors and mountains in the incredibly clear air....in the remoter districts the appearance of a motor cycle is a rare and interesting event, and no matter what time of the day or night you arrive, you will find a warm welcome and will be given the best entertainment that means allow. If you take a motor cycle to

Iceland and camp as much as possible you will, I think, feel freer than you have ever felt before...if you go by trawler or cargo-boat, as I did, you not only make a very cheap trip but will see much that is fresh and interesting...there are only sme 50 motor cycles on the island (mostly Triumphs, but also Ariel, BSA, Douglas, Harley-Davidson, and springframe OEC machines) so take the usual spares with you, and don't forget a good puncture-repair outfit!"

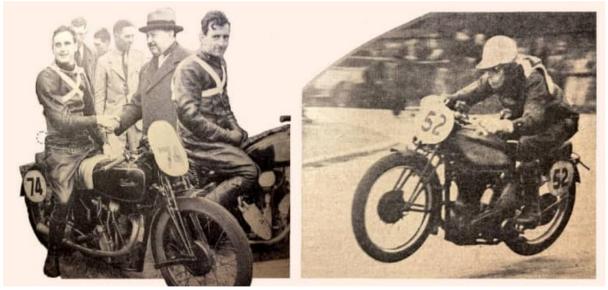


"Rocky

bastions and screes at Huulfjorth." GE Shelby and his Sunbeam spent three years exploring Iceland.

"THE 1936 JUNIOR MANX Grand Prix will go down in history as one of the closest races of the series. Throughout the race there was a dog fight for the leading position, and at the end of the sixth lap only seven seconds separated the first and second men. Austin ('Nelson') Munks, riding a 348cc Velocette, was the winner at an average speed of 73.93mph. His win is all the more creditable in view of the fact that last year, in a shooting accident, he lost the use of one eye. Second and third respectively were JH

Blyth and WA Rowell, both riding 348cc Nortons. Thus another big race this year resolved itself into a Norton-Velocette duel. Many retirements in the Lightweight Race, which is run in conjunction with the Junior, caused considerable changes of position among the placemen. changes The Lightweight Trophy was won by D Parkinson (248cc Excelsior) after six consistent laps during which he was never seriously challenged. FRW England (249cc Python) was second; and FJ Hudson (249cc OK Supreme), third. Owing to bad weather conditions speeds were low and no records were broken, both trophies being won at a lower speed than in 1935. In previous years the race has always been run in the morning, but in the hopes of avoiding the mist which so fluently blots out the Mountain the organisers, the Manx MCC, changed the starting time to 2pm. Tuesday dawns fine, but as the morning wears on the sky clouds over, and by lunch time it is raining fitfully in Douglas and there is a high wind. The chances of fine weather for the race are remote indeed. At 1.30pm the riders arrive at the start after their run through the streets of Douglas from the Drill Hall, where the weighing-in was held on Monday afternoon. There is the usual pre-race activity at the pits. WA Rowell enlists the aid of a lady representative to repair his goggles. WL Dawson's machine falls over as he makes a slight adjustment and nearly causes several others to fall as well. FRW England has a patent lap-scoring machine. It consists of six pieces of chewing gum, held under a rubber band, one of which is eaten at the beginning of each lap. After being postponed for 24 hours owing to fog, the 1936 Senior Manx Grand Prix proved to be one of the most thrilling races of the series. Austin Monks (490cc Norton) repeated his performance in the Junior race by beating Jack Blyth (490cc Norton) in a tremendous last lap dash by a margin of seconds. Third place was filled by K. Bills (490cc Norton) after a fierce struggle with T McEwan (490cc Norton); the latter covered four laps in nearly a minute less than the winner and made the fastest lap of the day."



"A Munks (348cc Velocette) congratulated by the Lieut-Governor of the IOM, Sir Montagu Butler, after his win; and D Parkinson seated on the 248cc Excelsior which he brought home to victory in the Lightweight Race." (Right) "WA Rowell, third man home,

appears to have his tongue in his cheek as both the wheels of his 348cc Norton leap off the ground at the top of Bray Hill."

"MAY I, AS AN ENTRANT in the 1936 Junior 'Manx' take this opportunity of thanking, through the medium of the 'Blue 'Un', the officials of the Manx MCC? Being foolish enough to try to motor a trifle fast, I found myself with a month in hospital to consider the folly of trying to run before learning to walk. During my period of enforced rest 1 was visited every day by Mr GD Hanson, the chief marshal, and I would like to thank him and the other officials and marshals of the club for the time and trouble they took making us less fortunates comfortable. These hard working officials deserve all the credit for the great sporting spirit that underlies everything connected with the 'Manx'. I, for one, am looking forward to the 1937 Manx, when I am hoping to profit by this year's experience. In closing, may I also thank the doctors, sisters and nurses of Noble's Hospital, Douglas, for the treatment I received whilst a patient there—in fact, it was a pleasure to have fallen off! A11 the best to the 'Blue 'Un'.

W Molyneux, South Liverpool MC."

"THE MINISTER OF TRANSPORT when issuing his only report on accidents on the road, ie, the Fatal Accidents Report, 1935, made the following statement to the Press: 'Pedal cyclists and motor cyclists are recorded as being responsible for more accidents than any other class of drivers.' This statement is definitely repudiated by the report issued by the Home Office on April 2nd, 1936. In the latter report (a much more comprehensive statement) the responsibility for the accidents involving personal injury, fatal and otherwise, can be clearly allocated between persons on the vehicles to whom the responsibility is attributed, and persons not on the said vehicles. An analysis of this report [covering England and Wales] reveals the following important facts: Number of motor cycle accidents, involving personal injury, fatal and non-fatal, to persons not on the vehicles to whom the accident is attributed: Fatal accidents, 230 out of 3,308 (6.9%); non-fatal, 12,156 out of 106,628 (11.3%). The responsibility attributable on the Home Office figures shows the motor cycle to be far less responsible than any type of four- (or more) wheel mechanical transport, the proportions for which are: fatal accidents, 2854 (83.2%); non-fatal accidents, 77,523 (72.7%).

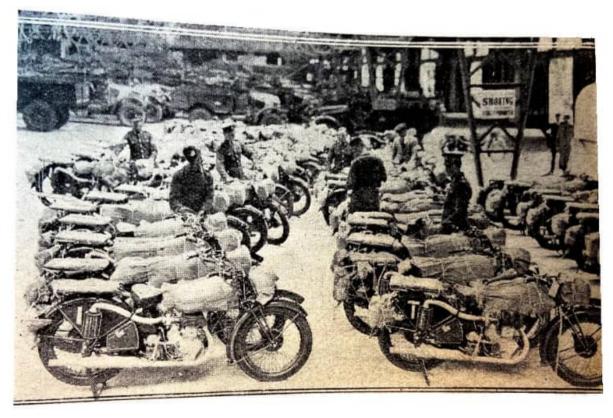
SA Davis, Organising Secretary, British Motor Cycle Association, London, WC1."

"BEFORE A RECORD CROWD of over 75,000, Lionel Van Praag won the Speedway Championship of the World at Wembley last week. A native of Australia, captain of Wembley and one-time typewriter mechanic, Lionel started speedway racing 'down under' at the age of 16. Second was Eric Langton, the England and Belle Vue captain. Third was Bluey Wilkinson, of Australia and West Ham, while fourth place resulted in a tie between Frank Charles, of England and Wembley, and Cordy Milne, of America and Hackney Wick. All the finalists started with a credit of bonus marks based on their percentage performances in the qualifying and championship rounds, as follows: Eric

Langton, 13; Charles, Newton, J Parker and Van Praag, 12; Hansen, Harrison, Huxley and Wilkinson, 10; Case, Ormston, J Milne and C Milne, 9; Lees, Phillips and Abbott, 7. Owing to previous injuries Jack Parker and Joe Abbott were non-starters, which was more than a pity, and as first reserve Bon Johnson was also a non-starter, the vacant places were filled by the second and third reserves, Bill Pitcher and Arthur Atkinson, who each started with six bonus marks. From the start it seemed obvious that the main fight for the title would be between Langton and the eight lads with 12 and 10 bonus marks, with Charles and Van Praag second favourites, and for a number of races the riders ran true to form. Frank Charles staggered the world—yes, there were visitors from all over the globe at Wembley on Thursday—when he won the opening race from Case and Phillips by nearly a quarter of a lap in 73.6 seconds, knocking no less than 1% seconds off the clutch-start record, held by himself. Could Charles keep up that sort of tramping, and if so, could anybody beat it? It was not until Heat 20, the last race, that Langton and Van Praag met each other, Eric with 24 points and Lionel with 23. It was a dog fight all the way, with Van Praag just leading Langton, and Jack Ormston trying his utmost to beat both of them. Had Ormston been successful, with Van second and Langton third, it would have meant that Langton, Van Praag and Wilkinson would have tied for first place with 25 points each, and the resultant run-off of the tie would probably have necessitated the entire re-building of Wembley Stadium! However, although there was only a matter of a few feet in it at the end, Ormston just couldn't make it. Van ran out the winner, with Eric second. This put Langton and Van Praag level at 26 points each and the tie was decided by a four-lap clutch start (gate) match race. Langton won the toss, took the inside and was first into the bend. Van came inside, headed him up the far straight and took the lead out of the second bend. Eric drew level on the inside coming out of the seventh bend, and repeated the tactics out of the last turn. But Van just had the legs of him and won the World Title, Trophy and the first prize of £500 by three-quarters of a length. Eric Kemp Langton, of course, took the second prize of £250. Arthur 'Bluey' Wilkinson, who had gone through the entire Final unbeaten (scoring the maximum of 15 points), and whose total score with bonus marks was 25 points, took the third prize of £100, while the fourth prize of £50 was divided between Frank Charles and Cordy Milne.



"Draining the tank is generally associated with a holiday trip to the IOM or the Continent. This machine, however, is being made ready for a grimmer journey, for it is about to be shipped from Southampton across to Palestine, where thousands of troops are being sent to restore law and order."



"Large air-cleaners are fitted at the sides of the rear wheels of this batch of Army motor

cycles recently shipped to Palestine. At first glance the long induction pipes resemble exhaust pipes."

"A READER VISITING THE Pump Room at Bath was handed a leaflet published by the Bristol Pedestrians' League, entitled 'The Cry of the Children'. It contained some statistics about road deaths, tabloid reports of a few accidents to children, some very poor and silly verses, and some suggestions for safeguarding life on the roads. The latter indicate the mentality of the person who has spent money on printing such rubbish. They include: (a) The total abolition of all motor cycles. (They are 'not at all necessary' and pillion riding is 'a sure form of suicide'.) (b) All users of private cars are to undergo a strict driving test and medical examination. (The author admits that private cars kill and injure more people than any other form of vehicle, but does not press for their abolition; presumably, he or she owns a car?) (c) The speed limit to be fixed at 12mph in towns and 20mph in the country. The verses contain such gems as: 'Unheeding cries of anguish That follow in their wake, What matter dead or dying If a record they can break.' I wish these humane but impractical persons would try to realise that all motorists are quite as much disturbed about road fatalities as the author of this pamphlet; and that motorists in general are co-operating to the best of their ability with the authorities in an endeavour to reduce accidents. It is an unfortunate element in the Machine Age that accidents occur at sea, on the railways, in factories—why innocent people even get electrocuted in their baths! We have just two alternatives. The one is to make all machinery illegal, and the other is to devise all possible safeguards. Man-kind in general prefers the latter solution."—Ixion

"IN THESE SUNDAY QUEUES—eg returning from Eastbourne to Town in the evening, or on any similar road which in parts at least remains a two-stream road—exactly where should the good motor cyclist ride on the left-hand strip of the road? He must choose in a real queue between three policies, viz: (a) Hugging the road edge. (b) Where the propshaft would be if he were a car—ie, bisecting longitudinally a rectangle. (c) On the outside of the left-hand strip. If we adopt (a) we get shut in, because a car is sure to move up alongside on our right; we may even get squeezed kerbwards most uncomfortably; we lose most of our chances to overtake any 'creeper' just ahead, and it is a little distracting when the passengers of the alongside car either stare at us haughtily, or—if young and ribald—start ragging us. If we adopt (c) we are in a favourable position to nip past a 'creeper' ahead; but a car is sure to move up inside us, and wherever the road narrows to a pure two-stream width we may get uncomfortably squeezed and even dangerously squeezed between the alongside car on our left and on-coming traffic. So far as I know, not even the Archbeacon\* has deigned to suggest what our proper conduct is. For myself, I elect as far as possible to pretend that I am in a car, not on a motor cycle; I assume that I am entitled to a small rectangle of road such as a car would occupy in my place, and I set my bike to bisect that rectangle longitudinally. Whenever a car evinces an inclination to move up alongside me on either right or left, I try to 'ride it off', as a polo man might say (I am assuming, of course, that the car ahead limits us both to a set speed for the moment at any rate). What do you do in such circumstances? Hug the kerb? Ride 4ft out from the kerb? Ride 8ft out from the kerb? Those are approximately the three alternatives. On my soul, I do not know which we are supposed to select, or which is reckoned good riding and good roadmanship. But my own instinct is to claim my rectangle and ride about 4ft. out from the kerb whenever possible."—Ixion

\*Presumably Transport Minister Hore-Belisha.

"I WHO ADDRESS YOU (he said modestly) am to blame for the existence of the MCC Team Championship event, and persuaded our Big Boss at the office to present a cup for a club team championship over 30 years ago. We had no variable gears in those days, and the future of passenger motor cycling was supposed to rest between (a) trailers and (b) tandem motor bicycles, of which the Phoenix and Ormonde had a certain popularity. We had sufficient foresight to insist that one machine in each club team of six should carry a passenger. My own club did not include a tandem in its membership; and the crux of team choosing was to find a passenger outfit which would not be stumped by the first real hill (by 'real' hill under those conditions we meant, say, half a mile of 1 in 10). I still remember the committee meeting at which our most important job was to pick: (a) A reliable high-powered bike. (b) Ridden by a fellow with stout lungs and calves of fencing wire to do the lpa ('light' pedal assistance). (c) With a featherweight trailer. (d) And a featherweight passenger. The last item was important, as the lads liked to take their pet girls as passengers, and the girls of the last century had not learned to slim."—Ixion

"A GLASGOW GAS-WORKS has installed a benzole recovery plant."

SIR JOHN CADMAN, chairman of the Anglo-Iranian Oil Co, warned that world oil supplies would be exhausted within 20 years. UK petrol reserves were about 1,500,000 tones; enough for about four months.



"London

still has one tollgate, that at College Road, Dulwich, SE. Here is the woman toll-collector at the Dulwich Hill Gate collecting the toll from a road patrol."

"THE RAC CLAIMS that it has secured the derestriction of over 200 lengths of previously 30mph-restricted road."

"KEEP TO THE NEAR Side Lane Except When Overtaking' is a new MoT- authorised sign to be erected on roads marked with traffic lanes."

"MR C FOLEY, secretary of the pedestrians' Association, wants to restrict or prohibit motor vehicles from using by-roads and lanes unsuited to them."

"MR BASIL WATSON, KC, the North London magistrate, has made good his threat to fine a speed-limit offender £50 [worth about £3,000 in 2023]. The motorist concerned was also disqualified for four years."

"WHEN TWO MEN were charged with taking a motor cycle in Dublin, the district justice criticised the owner for leaving the machine and said it was, ridiculous taking up the time of the court with such a case, reports *Irish Motor News*."

"A LORRY-DRIVER who was seen by a policeman at Birmingham trying to light the electric headlights of his lorry with a match was later charged with being drunk."



"Broadsiding tactics are employed by W Allan (490cc Norton) when about to take the lead from A Marr (600cc Douglas) in the Heavyweight Championship, at the West of Scotland Speed Championship meeting. Both riders later retired."

"EVER SINCE GERMANY WRESTED the International Trophy from Great Britain, when the International Six Days Trial was held in 1933 in Wales, we have tried hard to regain our lost laurels in this the greatest of all reliability trials. Our failures have never been through want of trying, but on the other hand, no one will deny that our organisation has not been quite up to the standard of our victorious opponents. Theirs was typical of Teutonic thoroughness. There were weeks of serious training. Men and machines were put through their paces in two-, three-, and even six-day trials, and as the date of the trial drew nearer, so the riders in the German team were vigorously supervised. I do not think I am wrong in saying the German riders were forced to spend the whole of two mornings doing nothing except remove wheels and tyres and then replace them. Vivid stories were told of the specialised training through which these men went, including big daily mileages. It must have been very disheartening to our teams to see and know of their opponents' superior training. We had neither the facilities nor the support to achieve our objective. But all that is past. This year will be remembered as the one which showed what happens when John Bull gets thoroughly roused. I can assure you it will not be out fault if we do not win the International Trophy next September... Last week the members of the Trophy team and the two Silver Vase teams were asked to bring then machines down to Brooklands so that they could be scrutinised and put through their paces. VN Brittain (348cc Norton), GE Rowley (348cc AJS) and WS Waycott (495cc Velocette sc) are the men upon whom rests the task of winning the Trophy, while L. Heath (Ariel), A Jefferies (Triumph) and J Williams (Norton) will form England's 'A' Vase team. The 'B' Vase team will consist of that well-known Scottish trio, JA McLeslie, JC

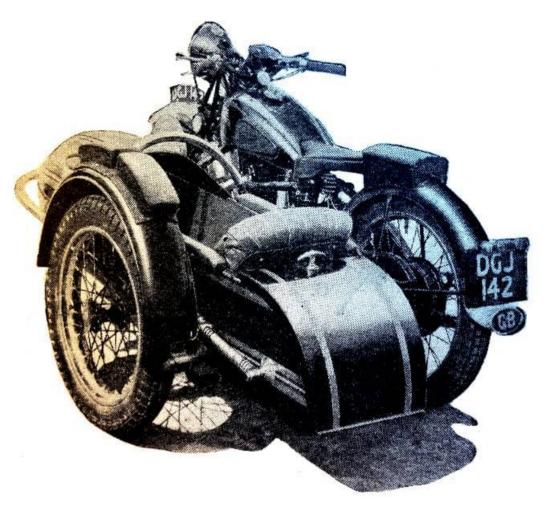
Edward and R MacGregor—all of them on Rudges. The first two teams put in an appearance, but as the 'B' Vase team were all riding the same type of machine it was not considered necessary to bring





"All team members had to remove wheels, covers and tubes against the watch. On the right, in white, is Alan Jefferies, who put up the best time. In the foreground is Vic Brittain, while on the left are the Waycott brothers." (Right) "The British 'A' Vase team lines up previous to a brief speed test. They are Allan Jefferies (Triumph), L Heath (Ariel) and J Williams (Norton)."

the riders down from Scotland. Instead, Ernie Nott came down with one of the Rudges, and it will be left to the Scottish ACU to test the riders...A noticeable feature of the machines was the big part played by rubber bands in securing tools, etc, to the machine. While the bands are undoubtedly ideal for the job, I personally consider they are not quite in keeping with the general air of efficiency. After the Committee's scrutiny the machines were wheeled out on to the track and the riders asked to remove the air cleaners and substitute the necessary jets before doing two preliminary laps and then three more at speed. I cannot publish the speeds, but those who were looking on with watches in their hands were quietly whistling with astonishment at some of the lap and kilometre speeds. Then followed quite the most interesting part of the programme. The riders were required to fit a new spare rear cover and tube, then to fit a new tube to the front wheel. Alan Jefferies was easily the first to remove his rear cover, but his total time taken, including the replacement and inflation, was nearly equalled by Len Heath. Incidentally, the new gas cylinders—they are a discovery of Dr Galloway—are highly efficient. They contain liquid gas, and must be used in a vertical position, while the process of inflation should not take less than 30 seconds. I understand that, although they are only roughly a foot in length and two inches in diameter, they are good for six complete inflations. After a final inspection of all tools and spares, the competitors were handed cards on which criticisms and suggestions were offered."



"The businesslike Rudge outfit being used by LEC Hall in the International Six Days Trial. The sidecar is a Steib."

"AS YOUR READERS are probably aware, all the riders in one of the teams selected by the ACU to represent Great Britain in the Silver Vase Competition in the International Six Days Trial are mounted on Rudge machines. I should like to take this opportunity of acknowledging publicly the assistance offered to my firm by Mr Jack Sangster, Managing Director of Ariel Motors (JS) Ltd. So that the strongest possible team could be put in the field, Mr. Sangster very sportingly released Jimmie Edward, so that he might share the honour of representing his country in company with Messrs Bob MacGregor and Jack Leslie. As typifying the spirit underlying his action, I cannot do better than quote from a letter I received from Mr. Sangster: 'I hope these arrangements will assist you to put up a fine show for the benefit of the British Motor Cycle Industry, and, in any case, as an individual firm, I should like to wish you every success.'

For Rudge-Whitworth Limited, Graham Walker, London, W1."

"TODAY THE THOUGHTS OF thousands of motor cyclists throughout the world will be centred on the pretty little German town of Freudenstadt, where early this morning there started the greatest reliability trial of the year. The International Six Days Trial is on, and the cream of riders from six countries are tackling the narrow, twisting roads of the

beautiful Black Forest country that are included in the first day's run. There is no event on the sporting calendar that can compare with the 'International'; it is a super-sporting trial and a long-distance road race rolled into one. And success can come only to the combination of man and machine that is perfect in every sense of the word. The big question is: 'Who will win the Trophy?' Germany, with the same brilliant team that brought her victory last year, is bound to be a hot favourite, while the fact that last year Czechoslovakia was leading up to the final speed test will not be forgotten. Or will the Italians spring a surprise? These three countries will, perhaps, provide the greatest obstacle to Great Britain in her efforts to regain her long-lost laurels. Nevertheless, we say with some confidence that success for this country is nearer than it has been for a long time. Our riders are among the finest in the land, and both they and the machines they ride have been thoroughly prepared for the gruelling test. Britain is due for a win; may our riders have all the luck they deserve!"



"THURSDAY—FIRST DAY. For many people 5am is an hour about which the less said the better. Yet at this time last Thursday there were hundreds of people lining the roads through Freudenstadt. They were there to see the start of the year's greatest motor cycle trial, the XVIII Internationale Sechs-Tagefahrt der FICM—to give the 'International' its correct title. Five-thirty was zero hour, and with five minutes to go it was still pitch dark.

However, such was the lighting of the scene of the start that every detail could be seen. Soon the riders were brought up to the starting line—with their hearts in their mouths, be it said, for this year there was a special check less than two miles away to catch out those with sulky motors. Promptly at 5.30am the maroon announced the start of the trial. The first men got away without difficulty. At the check outside the town, quite contrary to expectation, the riders were arriving early. One or two of the later numbers had narrow squeaks. AH Collison (346cc AJS) only just managed to clock in on time. By 6am the sun was trying hard to pierce a high mountain mist...The going was for the most part over forest roads. It was the next section on to St Anton that started the fun. Here, mud, loose surfaces, acute bends and sudden drops played havoc with the 'racers', many of whom had yet to settle down to the steady speeds that win gold medals. PL Topliss (496cc BSA sc) broke an oil pipe and ran out of oil five miles before the refuelling depot. By nursing his engine he got there, but in spite of 'blinding' lost many marks on time. Later a stone in his chain caused him to retire. R Dusil (595cc Jawa sc), of the Czechoslovakian Trophy team, severely damaged his sidecar in a toss, which likewise caused him to retire. His team-mate Stanislav (247cc Jawa) crashed rather severely, and also disappeared from the trial. That the going was undoubtedly severe was true, but it certainly was not impossible, and at the end of the day several British riders agreed that it was almost a good thing! Then news leaked through that both the Italian and French sidecar men had retired—the going was certainly trying out sidecar chassis. Even Dr RL Galloway (499cc Rudge sc) had trouble, although in his case it was connected with his fork spindles, which became damaged and caused him to lose valuable marks on time. AG Wills (347cc Matchless) had to give up—wisely in the circumstance—with an inoperative clutch and a pulled-out nipple on the front brake cable. AG d'Arcy Sugden (499cc Vincent-HRD) broke his ht lead through catching it in a branch, and lost so many marks on time when replacing it that bd had to retire. Many Continental riders also fell by the wayside, and no wonder, for the demand of the schedule was nerve-racking even to the experienced riders. Walfried



"Dr K Christmann (494cc BMW), Germany, accelerates through a picturesque street in St Blasien, following a lunch stop." (Right) "Enthusiastic crowds wait in the flagbedecked streets of Garmisch-Partenkirchen to watch competitors on their way to the

finish of the third day's run. The leading competitor in the photograph is U Struwe (494cc BMW), Germany."

Winkler (246cc DKW), of the German 'A' Silver Vase team, came off and damaged his foot gear change, losing many marks in getting it to work again. Fleischman (348cc NSU), of the German 'B' Vase team, had three punctures in quick succession, and lost marks on time at the St Anton check...For miles at a time the route lay through vast pine forests, much of it enshrouded in low cloud. On rare occasions it climbed above the clouds and sometimes it was possible to catch glimpses of the mountains en each side standing proud above the clouds. The chief difficulty of this section lay in the negotiation of terrifying water gullies at least a foot deep and two feet wide. Striking these gullies at 30mph at the rate of one every 50 yards put a great strain on the riders, who had by now to contend with a soaking drizzle...One little section before the second speed hill-climb at Ottenhofen caused quite a lot of trouble. It started by being a normal gradual descent under trees. It was not so bad as it seemed, and with growing confidence one's speed increased to 30-40mph. Then suddenly the surface changed so that it resembled Hive Brae, of 'Scottish' fame. Imagine taking that at 40 downhill! The result was that many came unstuck, including such well-known riders as AP van Hamersveld (497cc Ariel). On the hill-climb 44 riders lost marks. Then followed a 40mile run back over better roads to Freudenstadt, where a vast crowd waited to see the end of the first day's run—and what a day! Only two teams, England and Germany, left complete and without loss of marks. In the Silver Vase contest both British teams and the Irish team were intact, while only Holland ('A' team) and Austria (with both teams) were left without loss of marks—in one day's run 10 teams had lost marks in the Vase contest. FRIDAY—SECOND DAY. By way of contrast...for the most part the going was easy—possibly the brilliant sun had something to do with this. But when it lay along forest roads or tracks it was frequently quite a different story, for here in the gloom lay snares for the unwary. Rocks, boulders, loose and muddy surfaces all took their toll. particularly when encountered on the multitude of acute bends. Of the 219 riders left in the trial after the sorting-out on Thursday, thirteen were fated to retire, among them being G Oates (497cc Ariel sc) and LEC Hall (499cc Rudge sc), both with sidecar chassis trouble...Even at this early juncture it was pitiful to see the condition of many of the machines which had endured the fork crashing and bumping of Thursday's run. It was definitely dangerous to follow closely behind some of the 250cc machines—particularly on hills—owing to their liability to seize up. Once again a huge crowd turned out to see the start. The course immediately 'dived' into the Black Forest by way of a terrifyingly muddy and precipitous descent. At Oberwolfach the riders dropped down out of the clouds for the number check...Eventually, after a very tiring run, but nevertheless a very enjoyable one, the first competitors began to trickle into Freudenstadt soon after 3.30pm. And still the sun shone in all its glory—a fitting end to a grand day in which both Germany and England, of all the Trophy teams, still retained their clean

sheets. SATURDAY—THIRD DAY. Although it was still pitch dark at 5am, it needed but little imagination to realise that the rain was pouring in torrents. A glance out of the window showed the street lamps enshrouded in mist. What a gloomy start for one of the most difficult days of the trial! Soon after leaving Freudenstadt the route plunged into hilly country with narrow and really tricky tracks, which in many cases became so muddy that time and again competitors found themselves suddenly sitting on the ground. What with the mist and rain and the two timed sections-one a hill and the other some 10 miles of a very poor and rutted country lane—competitors had a terrible time of it. Incidentally, the timed hill-climbs were not finding favour. Most of them were held over excellent roads up gentle gradients with few bends. The marks were based on the average of the five fastest men (regardless of clean sheets), plus 15%. To-day's first hill at Ziegelwasen caused little bother, but the timed road section was quite another story. Here the riders had to tackle an extremely bad-surfaced track, which had its bends marked out with warning boards à la TT. Many sidecarrists had hair-raising moments, but it seemed to suit WS Waycott (Velocette sc), of' Britain's Trophy team. Gordon Wolsey (Ariel) had rather a rough passage; his fork spring had broken, and he was compelled to lock the forks up solid. Marjorie Cottle (BSA) also had a trying time of it, for her clutch was giving trouble.



"An impression of the truly magnificent country which the International Trial traverses. Richly wooded mountains are everywhere, and the dusty, tortuous roads wind through picturesque defiles. The sidecarrist 'raising the dust' is O Bergmüller (600cc NSU sc), Germany."

All the men in Britain's three teams came through in style, although those in the 500cc class found the demands of their higher schedule very exacting...by the time Weingarten was reached the sun was shining brilliantly. Even so, the mud on the roads—surely this must have been one of the muddiest days in any 'International'—had

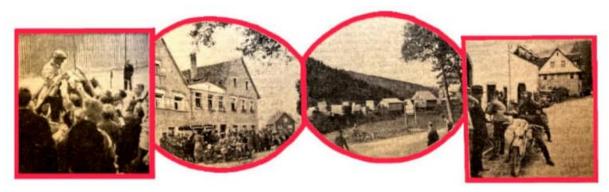
by no means dried. In fact, one hill was so bad that several unfortunates had to turn round and descend in order to make a second attempt. Wheelspin was, of course, the chief bogy...At Füssen, where the speed test is to be held on Tuesday, the riders travelled down one leg of the speed circuit. Soon Oberammergau, of Passion Play fame, was reached, and now, high up in the mountains, the riders cracked along as fast as they could. Round the curves of the Ettalerberg they swerved until they reached the level on which Garmisch-Partenkirchen lies, with the lofty Zugspitz on one side and the Wank on the other. Soon they were being 'Heiled' into the Olympic Stadium—the headquarters of the trial from now onwards. Still Great Britain's three teams retained their clean sheets, while the Trophy team still had to contend with the German Trophy team—both being intact. SUNDAY—FOURTH DAY. Germany and Britain alone were unpenalised in the International Trophy contest. In the case of the Silver Vase contest, both of Great Britain's teams were without loss of marks, a distinction shared with the Irish boys, the Dutch 'A' team and the Austrian 'B' team. Once again it looked as though a battle royal would take place on the road circuit at Füssen. In this case the odds would be slightly in favour of Britain on account of having two very fast three-fifties in the team, which would mean that the 500cc BMWs would have to gain approximately seven seconds a lap in order to win...Down at the start Gordon Wolsey (497cc Ariel), alter practising on another Ariel the night before, managed to fit a new fork spring in the 15 minutes allowed. TCK Barnes (1,000cc Ariel Four sc) created a stir when his carburetter caught fire. Willing hands pushed him off and so allayed the flames—but was the pushing looked upon as outside assistance? That important point was not settled until the evening, when it was declared that 'outside assistance' had not officially been given. After passing through the narrow, be-flagged main street of Partenkirchen, the route immediately took to a narrow track with huge fork-bottoming galleys. As if these conditions were not bad enough, the sun decided to come from behind the clouds—to the consternation of the competitors, who had to face its full glare all the way until the main road to Klais and Walchensee was reached. The Walchensee itself presented a never-to-be-forgotten spectacle even at this early hour, for the surrounding mountains were reflected on its calm, mirror-like waters. Good roads—good, that is, for the 'International'—led to Holrkirchen where the famous Munich Autobahn was-reached, and for the next 40 or so miles competitors were able to experience the delight of travelling at continuous and safe high speed down this wonderfully smooth doubletrack highway, one track of which is probably wider than the average British by-pass. At the end of the Autobahn good roads—except for two short detours—led to the beautiful Königssee which was almost unbelievable in its beauty. The lake, its clear, blue waters lapping the base of vast mountains, supplied a refreshing contrast to the sweltering heat encountered in this



L-R: "Ernst Henne (BMW) is acclaimed by spectators near Garmisch-Partenkirchen during the third day's run. R MacGregor (499cc Rudge) rides into the lunch control at Königsee, passing F Dumont (498cc Condor), Switzerland. An Austrian competitor, W von Millenkovich (250cc Puch), enters the control at Freudenstadt at the end of a day's run."

famous German beauty spot. And to make the lunch stop all the more enjoyable, an hour was allowed, and competitors were urged to take advantage of the free electric motor launch cruises offered by the authorities. Even on the return run via Berchtesgaden and Badrichenhall the scenery was mountainously pluperfect, and as if to add the finishing touch, the Bavarian men and women were out in their picturesque Sunday best clothes. MONDAY—FIFTH DAY. Another glorious day, this time not even marred by a thunderstorm as was the case on Sunday. All day long the sun blazed down on the glorious Bavarian countryside. In these circumstances, one would have thought the course would have been on the easy side, but in the opinion of many it was the most difficult and tiring day's run to date. For mile after mile both men and machines were subjected to the most excruciating bumps, while all the time the greatest caution had to be exercised over the dry, loose surface and dusty tracks. By way of contrast, much of the going in the morning was muddy whenever the route passed through woods, while many unpleasant moments were experienced by riders while riding over tracks made out of pine logs laid like planking across the road... Most of the solo men very wisely decided to adopt the Continental style of cornering with the inside foot well and truly down. By adopting these tactics, FW Neill (495cc Matchless), JA McL Leslie (499cc Rudge), and J White (497cc Ariel), made excellent getaways from each bend. Even L Heath (497cc Ariel) and JC Edward (499cc Rudge) dabbed. Of course, just to be different, GF Povey (493cc Triumph) kept his feet up, but he was very fast. all the same. All the British teams were admirable, the 350s of Vic Brittain (348cc Norton), GE Rowley (346cc AJS) and Jack Williams (348cc Norton) appearing to have just about as much acceleration as the best 500. DB Harmer (346cc New Imperial) and AH Collison (346cc AJS) were both well up to Six Days form, while wily J Pecha (172cc CZ) sat on the mudguard pad practically all the way. Both the Tiffens, father and son, were excellent, while Greenwood had all the confidence of the hearty veteran that he is. Of the Continental riders, nearly all the BMW men were outstandingly good, and so were the

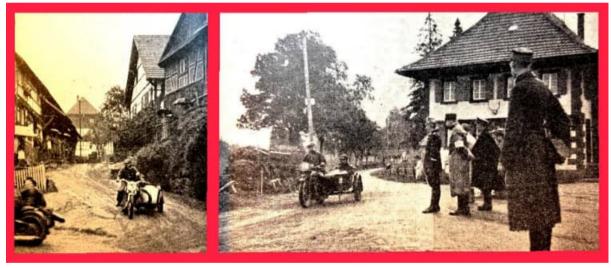
Puch competitors. E Villa (500cc Gilera), of the Italian Trophy team, appeared to underestimate his speed and overshot the bend. J Stelzer (494cc BMW), a German Trophy team man, had plenty of power in hand, and so had L Kraus (595cc BMW sc). By way of a last-minute sensation, EJ Henne (494cc BMW) found himself in difficulties on the upper slopes of the hill. Just as he was passing one of the *MC* men his engine suddenly seized; it freed and then immediately seized again. After a pause of a few seconds he was off again slowly, but that seizure spelt the end og Germany's chances of winning the Trophy. it was only Henne's superb riding that got him back to Partenkirchen without further loss of marks...But while the British Trophy team are still intact a little anxiety was caused when Jefferies, of our Vase team, came off rather badly on one of the many acute and loose bends between the hill-climb and the finish...Alan's sheer grit and pluck got him back to the finish on time—a remarkable show.



L-R: "Autographs, please! Ernst Henne, world's fastest motor cyclist, is beseiged by young admirers at the end of a day's run." "The crowd gathers around the brightly coloured sunshade to watch the riders check in at Pfullendorf. The two foremost competitors are F Mayer (494cc BMW and J Hecker (498cc Zundapp)." "One of Britain's Silver Vase team members, Jack Williams (348cc Norton) going well a Menzenschwand." "R Heyer (250 DKW), Germany, pulls on his gloves preparatory to getting away after a check."

**TUESDAY—SIXTH DAY.** On the Tuesday morning the British competitors were more than excited. It certainly looked as if the Trophy was ours, and we also had a good chance of winning the Vase, for both our teams were intact and ready to fight it out with the Dutch 'A' team and the Austrian Puchs. Down at the start Alan Jefferies, with his right hand practically useless, managed to replace his foot-gear change, damaged in his spill on the previous day. Then Fred Povey, hearing there would be extra time available on account of short-circuiting the route due to a landslide on the first part, succeeded in fitting a new inlet valve spring. Henne, on the other hand, boldly attempted to fit a new piston to his BMW, and succeeded in doing so, but with a loss of 15 marks on time. There was a last-minute scare when was learnt that Waycott, of the Trophy Team, had taken the wrong turning out of Garmisch-Partenkirchen—it was dark, and the starting order was such that he went off first. Peter Bradley, the team manager, went rushing off to the first check 2km out, and found Waycott's name was not on the card. More panic.

At last it was disclosed that the check was late in being established, and actually Waycott, who had quickly realised his mistake, had regained the course and gone through the check before the officials had arrived. Even though it was the last day the going was exceptionally difficult, particularly the grassy section to Petersthal. It was just before this spot that Miss Marjorie Cottle (348cc BSA) had to retire with big-end trouble—poor consolation after a week's really brilliant riding without loss of marks. Other unfortunates to retire on the last day were Police Officer P Lehner (493cc Zündapp) and F Vanderschrick (596cc FN). The hill-climb was held up the Oberjoch also climbed last year. This hill, with its many bends and beautifully radiused corners, caused 14 riders to lose marks. Shortly before 11am the first men arrived at Füssen for the last test and the end of the trial—the speed test over the fiat, triangular road circuit at Höhenschwangau. At midday the sidecar men, excepting those riding in either the Trophy or Vase teams, were despatched. Immediately HM Persoon, with his 987cc ohv Harley-Davidson, leapt to the front, and was soon round again well ahead of a horde of BMWs, Zündapps and NSUs. Discretion was obviously the watchword of the majority of the British sidecar men; they just maintained their schedule without any sparks. A team of 730cc BMW sidecars, in the hands of Wolff, Fritsch and Reinhardt, maintained close formation throughout. Persoon's



"The sidecar members of the Czechoslovakian Trophy team, R Dusil (595cc Jawa sc) racing through the tortuous streets of the village of Reichenthal. Note the malalignment of the sidecar after its battering over the International route. Later, Dusil retired. (Right) TCK Barnes (997cc Ariel sc) has that 'still going strong' look as he enters Herrenweiss."

Harley-Davidson drew in near the start with a flat sidecar tyre, which the driver duly repaired in time to qualify for a gold medal. The second group away included the 250s and a few 500s. Frau Thourot (174cc DKW) had exceptionally bad luck when her throttle wire broke as the flag dropped. By the time she got going she had lost 15 marks and was right out of the running. In the next group Maurice Greenwood (346cc Royal Enfield) put up the best time in his class. Karl Pugh (497cc Ariel) was going very steadily, but

comfortably within his schedule. His was one of the many plucky efforts. For two days he had been riding with large lumps torn out of the spoke flange of the front wheel more than nine spokes were useless. As a result he had not dared to use his front brake, and yet he had managed to keep to schedule. Late in the afternoon—shortly before 5pm—the riders in the Trophy and Vase Team contests were taken round the course and then stopped on the line. In the circumstances, Great Britain could afford to lose 16 marks and vet still win the Trophy from Germany. As it was, our men and machines were as fit as could be. In the case of the Vase contest it was slightly different. Our 'A' and 'B' teams were going to fight it out in company with the Dutch 'A' and Austrian 'B' teams. In fact, it was this contest that provided the high-light of a rather dull afternoon. The Scottish riders in our 'B' team were on 500cc Rudges, and consequently had to average a higher speed than that of the two 350s in our 'A' team. Holland, on the other hand, had one 350 and two 500s. The deciding factor was the biggest total gain over the required average speeds for each class. The Trophy teams got away well, but McL Leslie (Rudge) had a bad start when the Vase teams were despatched. However, he soon got going, and it was not long before he had overtaken his team-mate, Edward, and was sitting on MacGregor's fail. Van Hamersveld (497cc Ariel) was going like the wind on a really fast Ariel. Len Heath was not slow either, while Williams and Jefferies were going very well indeed. Stelzer (494cc BMW) was lapping at over 76mph and adopting a curiously flat position with his toes resting on the tops of his rear wheel spring cases. Henne, on the other hand, was carefully nursing his sick motor—his object was obviously to finish. MacGregor and McL Leslie were lapping at over 70mph, and they needed to, for the British 'A' and Dutch teams, with their 350s, were by calculation dangerously near. Soon the hour was nearing its end. Our Trophy team was going round as steadily as ever, Vic Brittain following in George Rowley's footsteps, while Waycott was really fast. Those in the know saw that it was going to be a close thing in the Vase contest, and when the flag was dropped signifying the end of the 18th International Six Days' Trial the result of this competition was unknown. It looked, as if the Scots had won, but where were the British 'A' and Dutch teams? The Austrians had obviously been unable to make a sufficiently big increase on their schedule. Later it



"Winners of the Trophy: GE Rowley (346cc AJS), VN Brittain (348cc Norton) and WS

Waycott (495cc Velocette sc)." (Right) "Britain's successful 'B' Vase team: R MacGregor, JS McL Leslie and JC Edward. All were mounted on Rudge machines."

was learnt that the Scots had won by 2min 361/2 sec from the Hollanders, who in turn had pipped our 'A' Vase team by 11/2 sec—a grand finish to a wonderful trial." **NOTES.** EE Thacker's gold medal now. brings his score of premiers up to 16 for 16 consecutive Six Days' Trials. • • • Mr 'Dunlop' Bagley's assuring air went a long way in calming anxious competitors using the new Dunlop tyres with sealing compound. Only two or three British riders experienced punctures—something of a record this. ••• The team managers this year really did wonders with their men. Their invaluable presence at checks, coupled with their wide experience, played an enormous part in Britain's victories. ••• It was a great pity that such old hands as Billy Tiffen and Maurice Greenwood should have lost their 'golds' in the first two days' hill. climbs. There seems be something in the private owner's grudge against these 'TT' tests. ●● Dr Woods, the Irish team's doctor, did yeoman work for Alan Jefferies after his spill, which considerably bent both rider and machine. ••• So that all riders should experience the same conditions, the starting order was changed each day for each group. ●●● A striking pin in the DKW gear selector mechanism put out both Winkler and Geiss of the German 'A' Vase team. Kluge, the other team member, got through by using his gears as little as possible. ••• For once the riders found themselves with several minutes in hand at most of the checks, without having to ride unduly hard. ••• KB Norris was riding during the last few days with the bottom T-head of his steering column fractured. Eventually the righthand bottoms link fractured. He was able to substitute a ring spanner until he could get a short length of mild steel strip suitably drilled. ● ● For the purposes of the hill-climb on the Kesselberg all ordinary Sunday traffic was stopped for the best part of three hours. • • • Once again all dangerous points on the course, no matter how remote, were guarded by Nazi Storm-troopers. • • • It is regrettable that the striking success of the British team in the International Six Days' Trial was not accorded the publicity it deserved in the daily Press. Although the BBC announced the bare result, a search of the daily and evening Press next day revealed an almost entire absence of reference to the trial and the notable success of the British team, save in The Daily Telegraph, whose correspondent had forwarded a long message from Garmisch-Partenkirchen, giving a resume of the trial and the result." THE INTERNATIONAL TROPHY. Winners—Great Britain: VN Brittain (348cc Norton), GE Rowley (346cc AJS), WS Waycott (595cc Velocette sc); no marks lost. Runners-up—Germany: J Stelzer (494cc BMW), E Henne (494cc BMW), L Kraus (595cc BMW sc); 17 marks lost. Third—France: C Nancy (495cc Peugeot), R Pahin (495cc Peugeot), Bernard (723cc Gnome et Rhone sc); 531 marks lost. THE INTERNATIONAL SILVER VASE. Winners—Britain 'B' Team: R. MacGregor (499cc Rudge), JA McL Leslie (499cc Rudge), JC Edward (499cc Rudge). Runners-up— Holland 'A' Team: AP van Hamersveld (497cc Ariel), GA de Ridder (499cc Rudge), J Moejes (348cc Velocette). Third—Britain 'A' Team: J Williams (348cc Norton), A Jefferies

(343cc Triumph), L Heath (497cc Ariel). **CLUB TEAM PRIZE:** Kraftfah-Lehr-und VersuchsAbtig Wünsdorf: G Maier (494cc BMW), J Forstner (494cc BMW), F Lihhardt (494cc BMW). **FICM GOLD MEDALS (For Manufacturers' Teams)**—Triumph (FE Thacker, A Jefferies, GF Povey). Rudge (R MacGregor, JA McL Leslie, JC Edward). DKW (W Fähler, G Köhler, H Schrzer). Puch (F Stumfoll, G Stoltze, P Günther jnr)."



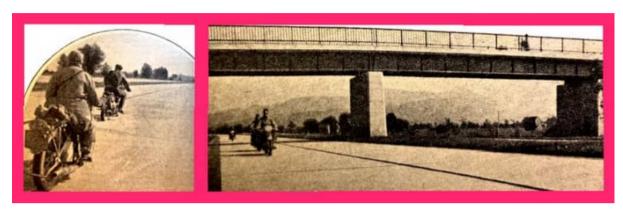
"Great Britain's victorious Trophy team sets off on the last lap pf the 'International'—the final speed test near Füssen. On the left is VN Brittain (348cc Norton), while GE Rowley (348cc AJS) is on the right. In the middle is WS Waycott (495cc Velocette sc)."

DUNLOP's tyre sealant wasn't the only ISDT innovation: the International oversuit from Barbour was issued to the victorious British Trophy team. It was claimed to be "absolutely and utterly stormproof even in blizzard weather"; advanced features included an instant 'zipp' fastener and draftproof belted cuffs at ankle and wrist.

"A PLEASING FEATURE to Britain is that the Dutch team the was second in the International Vase competition also used British motor cycles, the men and machines. Thus, of the only Trophy and Vase teams that finished without loss of marks, 12 of the 15 machines were of British manufacture. The club team prize went to a German Army team, with the Rudge (Scotland) team as the runners-up, while two of the four manufacturers' team awards went to Rudge and Triumph. Of the 87 gold medals that were awarded 48 were won by Germany, who had a total of 138 entries. What of the trial itself? Our own opinion is that of all the Internationals we have seen this was the best. On the whole, the road conditions were more severe than those of last year, but the

speed schedules were easier to maintain and there was a fair amount of main-road going. The time checks were close together—generally no more than 20 miles apart but at the majority of them competitors were arriving with minutes in hand. Even at the most difficult checks, those following sections of really atrocious track, few competitors lost any marks, Very, very hard riding over poor going was the rule, and men and machines were hammered in a way and to a degree that almost defy description. As a test, an International Six Days Trial as run by Germany is magnificent. That the event in no way bordered on the impossible can be gathered from the fact that there were 87 gold medal winners (which means that none of these men lost a solitary mark) out of a total of 249 starters—in other words, just over a third of the entry got through without the loss of a mark, which, we suggest, is approximately as it should be; incidentally, this is a higher percentage of golds than was the case last year. These facts tend to answer the critics of the system of timed cross-country sections and hill-climbs, which were nothing short of miniature road races...a machine that does well in speed climbs over twisty going that varies from good to loosish and can also be thrashed over hundreds of miles of tracks without giving anything serious in the way of trouble must be an extremely good all-round motor cycle. A further test of importance that was included was that of easy starting. This was carried out by arranging a check a couple of kilometres away from each morning's starting point...For the organisation no praise is too high. There is only one word for it, and that is 'colossal'. It is difficult to see how any other country could organise the event in such a superb manner. Every bend and every corner had its Storm-trooper or NSKK man on guard, and whole sections at road were closed to the public for hours on end. Thus it was possible for competitors to use the whole width of the road with impunity. The route marking, with different enamelled, sheet-metal arrows, danger signs and 'wrong road' discs for each day's run, was absolutely perfect No British trial, even a half-day affair, could conceivably be marked so well...It is impossible to imagine any trial organised in Great Britain in the manner of this amazing event staged by the ONS and DDAC. We have never seen organisation to approach that of this year's event, and we cannot imagine any other nation rivalling its superb efficiency...There is no gainsaying it: the ACU, if it exerts its right to organise the event next year, cannot hope to provide an event on anything like the scale of last week's trial, for it has not the facilities. Many consider that in view of the 30mph limit and the thickly populated nature of Great Britain, the ACU would be unwise to attempt the task. Certainly nothing on the same lines would be possible, either as to the conditions or the organisation—not, that is, unless the Government suddenly decided, like Herr Hitler and his advisers did some time ago, that there is nothing like motor cycling to develop skilled, efficient manhood, and therefore it, of all sports, is the one to be encouraged wholeheartedly. Can you imagine such an enlightened attitude in this country? We cannot, although we know Herr Hitler is right. This year even the German Army was taking part in the trial officially—yes, and one of the German Army teams won the club team prize Who will organise next year's trial? Italy has been mentioned; it has

also been suggested that two Continental nations collaborate. For ourselves we would like to see this country acting as hosts. Many Germans with whom we chatted at the end of the trial yearned to come to Britain. Would that we could organise an event to approach this year's amazing trial. Unhappily, it seems that the honour must be passed on to some other nation.



"Miss Marjorie Cottle (348cc BSA) follows a German rider along one of the magnificent high-speed autobahns. This photograph was taken by one of The *Motor Cycle* men when riding on his solo Norton at some 50mph. (Right) J Moejes (348cc Velocette), Holland, leads JE Fijma (497cc Ariel), Holland, and F Macchi (500cc Gilera), Italy, beneath one of the many bridges spanning an autobahn."

"GERMANY IS PRESSING AHEAD with her high-speed motor roads. Last week-end nine new sections, totalling roughly 250 miles, were opened to the public. Thus, 620 of the 4,300 miles planned have now been completed. As readers will have gathered from the description of the Six Days and other articles, these new highways are true speed roads—even 100mph can be maintained in safety, assuming the vehicles are capable of it. As a means of communication the roads are without equal. They open up Germany to the tourist and to the German they not only make distant towns and cities in the Fatherland accessible, but even enable him to visit neighbouring countries just for the week-end. For pleasure riding these Autobahns, in spite of the way they have been designed to alleviate boredom, are not to be recommended. They are business roads, designed for 'going places'. However, we cannot help thinking that Great Britain would be better off were she to build similar lines of communication, though with our much greater number of vehicles motor roads of a like nature would probably have to be on a considerably larger scale. In opening one of the sections last week-end Herr Hitler stated that in 18 months Germany would no longer need to import petrol, and in four years the problem of making her independent of rubber supplies would be solved. There is nothing new in the claim of independence in the matter of fuel. Italy has made similar claims. It is open to nations not possessing oil fields to produce alcohol, coal petrol and benzole. Usually the one difficulty is that of cost. Nevertheless, the wise plan for every nation is to ensure independence. Britain is slowly but surely adopting this policy, which is. one we have urged for 20 years and more."

RUSSIA, NOT TO be caught napping, built 5,346 miles of road during the year.

"I HEAR FROM 'Ambleside' and 'Torrens' that British roads seem like billiards tables when you arrive back on them after two to three thousand miles on the Continent. All the same, we have nothing to compare with the new German motor roads. Whoever was responsible for planning the Munich-Landesgrense Reichautobahn had his wits about him. This superb double-track road does not go like a ruler straight across the countryside, but in a series of very gentle curves and gentle ups and downs; thus there is not the boredom one would get with a road running dead straight for dozens of miles on end. Even so, I gather that neither of these two MC men would like to spend their motor cycling lives on autobahns. For 'getting places' the roads are uncanny, but why not go by train?"—Ixion

"UNLIKE MANY OF THOSE British riders who competed in the International, WS Waycott drove over on his machine. He thoroughly enjoyed himself, but not so much on that very wet return journey! He drove over to Germany with the idea of 'running-in' himself, though a Velocette, he says, can do with any amount of running-in, and with the object of making sure that everything was as near perfect as possible—there would be time to rectify any little points when he reached Freudenstadt,. Once there, he stripped the engine, decarbonised, and went over everything—incidentally, almost giving the team managers blue fits when they saw his lock-up littered with bits and pieces!"

"DOWN AT DOVER when the men who formed our victorious teams in the International Six Days Trial returned to England there was no official reception—precisely nothing except friendly cheerios from the Customs officials. In any other country there would have been flags out, crowds, cheers, an official welcome, and probably a banquet. Perhaps there will be a banquet later on. I hope so. All our men have received so far has been a few telegrams of congratulation, among them one from the Ulster MCC. The fact that our riders were really back in England was well brought home to those who travelled London-wards via Folkestone, Ashford, and Maidstone. On the drop down to Folkestone there was a Mobile stationed in a side road at a point where the 30mph limit begins. At this particular point the road looked safe enough for 50..."—Ixion

"Ambleside" and "Torrens" Give Their Impressions of the Machines that Successfully Carried Them
Through a Strenuous Fortnight

"AMBLESIDE'S" NORTON —

"SO 'TORRENS' WAS TAKING his new 1000cc Ariel over to the 'International', was he? Obviously, I required something good to keep up with him on our long trip across Europe to Bavaria. But that was not all, for I needed a machine which I could trust implicitly not only to get me round most of the course, but at a speed even higher than that of the competitors—at least, that is what invariably happens on this trial when you cover it as a Pressman. Well, what could have been better than a 499cc International Norton? Yes, a very 1937 Norton it was, with an IOM-type engine, a high frame giving a really healthy ground clearance, thin handlebar grips and a hundred and one odds and ends, not forgetting a couple of the new Dunlop 'Universal' tyres. It was—and still is—a grand machine. For my purposes it was absolutely ideal. After a preparatory run of some 200 miles, during which an inlet valve spring broke for some reason best known to itself, we were all set for Germany. I shall always remember those seemingly endless, dreary miles—hundreds of them—across the North of France—St Omer, Arras, Rheims, Vitry, Nancy, Strasbourg. Very fast for the most part, but, oh I those shocking bumps. Why they never shook the machine to pieces I shall never understand. At times the forks were working so fast that they seemed to be vibrating. However, they and the rubbermounted handlebars enabled we to arrive at my destination with wrists that were as flexible as when we started. Nor were there any aches, though for this type of going the saddle springs were a trifle too hard, although they undoubtedly became more supple towards the end of our trip. For mile after mile, or rather kilometre after kilometre, we maintained a steady 60. Up the long slopes I made a point of changing down into third, because the French petrol simply did not agree with the Norton. Neither, for that matter, did the oil. Because the machine was fitted with electric lighting, the usual gallon tank had been replaced by one with an oil capacity of two quarts. The smaller size did not allow the oil bubbles, formed by the dry-sump system, sufficient time to dissipate, with the result that quantities of oil were lost through the vent pipe. However, in Germany the trouble disappeared. On our arriving at Freudenstadt before the start of the trial, the jet in the carburetter was immediately seized and changed for a larger one by a competitor whose machine appeared to have been fitted with a 'dope' jet. With this jet the Norton ran all the week on a very rich mixture at high altitudes and a trifle peculiarly in the valleys. However, this richness was possibly a good thing, for many were the occasions when the Norton had to be caned good and hard. I wonder how often it is realised that when a Pressman follows the route of the' International' he must, on account of the narrowness of the roads and tracks, average the same speeds as the competitors to avoid getting in their way. In consequence he has to go as hard as he can. Many is the time when, on finding himself closing up on a 'racer' the latter waves him on at a convenient spot. If the opportunity to pass is not taken, the 'racer' gets worried. And so the Pressman finds himself maintaining a higher schedule than is really wise, but which circumstances compel. And this is what the Norton accomplished for the greater part of the six days. Never shall I forget those fork-crashing water gullies, the deceptive descents with slithery rocks un expectedly encountered, which sent into the air all at

angles when travelling at about 30mph. Only the superb steering of the Norton saved me from falling from grace on many occasions. Yes, crashing and banging around for a week, with miles of second gear work—how I blessed that gear, which, coupled with the slogging pull of the engine at low revs, made my work comparatively easy. All this the Norton had to contend with. And as if that was not enough, there were many miles of flat-out work over good roads necessitated by my Press schedule to catch the air mail. In Germany, high speeds are easily maintained, and on one occasion the Norton managed to get me back to Garmisch-Partenkirchen over twisty roads at an average of almost 50mph for a distance of 100 miles. Of course, the brakes played a big part, and I could not have wished for better. Whether the going was rough or smooth, wet or dry, I never for one moment had to he sitate to apply them. The steering I have already alluded to. 'Torrens' and I were the only British Pressmen who were given a special pass which allowed us up the hill-climbs while the tests were in progress and also along the Munich autobahn. Believe me, it requires a good steering model keep up with the 'racers' on the hill-climbs, while along the autobahn I was able to take photographs on one occasion with both hands off at a speed bordering on 70. Yes, my Norton was the grandest machine I could have had for the job. It had the speed, it had the riding position, it had the steering and it had the brakes. It could be flogged for mile after mile. With judicious use of the gears—all beautifully close—it could hold anything on acceleration. It succeeded in getting me through the 'International' without my having to use a single spanner. Those 3,000 gruelling miles took a little tread off the rear tyre, but in common with the majority of the 'International' competitors I never had a puncture, although the rear wheel rim has a nasty dent in it—a memento of those cruel gulleys that lurk in the Black Forest."

## - AND "TORRENS" ARIEL

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"WITH ANY LUCK, by the time this article is published the speedometer on my 1,000 cc Ariel Square Four will show over 3,000 miles. I still do not know anything like all there is to be learned about the Four. For instance, as yet I have made no really careful check of petrol consumption—all I can do is to give approximate figures—nor can I state in terms of seconds and decimal points the time the machine takes to leap from 10 to 50mph. I do know, however, that I have never handled a power plant so fascinating as that of this latest Square Four. Its sweetness is amazing. It will be still more so when one alteration has been made to my machine. The fault is mine—or, rather, circumstances—because I said that, in view of the proximity of the International, I could not wait for two correct components, but must have the machine immediately with non-production ones. So far as this article is concerned we will forget this one point, and for the rest, as with all

other articles of mine, please do not endeavour to read between the lines, because if you do you will be wrong. While in terms of time I have as yet no acceleration figures to offer, I know of no .machine that sends the speedometer needle sweeping round the dial so fast and with such silence and utter effortlessness. And the power is there to command. There is nothing frightening about it, for all the engine's 1000cc and, I understand, 38bhp. The engine is supremely controllable. She opens up cleanly, except for one slight flat spot which is little more than noticeable and nothing like so extensive as that on the experimental model I tried last Christmas. No, here one has the nearest thing to perfection in power units I have ever sat across, and it is dead smooth throughout its range. The machine is a. top-gear mount. Up hill, down dale, through villages, you can stay in top gear. 1 have trickled the machine up a 1-in-7 hill in top gear at I2mph. on the speedometer without even a suspicion of snatch. The other end of the scale I cannot speak about. At 86mph on an up-grade on the Munich autobahn the machine was still accelerating, although I was sitting bolt upright. At 80mph the engine was running without effort—just a dynamo-like smoothness. Unless or until I can get a more TT-like riding position 86mph is about as fast as I am likely to go. The machine is designed for fast touring in silence and comfort rather than, I imagine, endeavouring to Guthrie. Where one scores so decisively is in the fact that the engine is always working well within its capabilities, in the thrilling, flashing acceleration, and in the way the machine gobbles up hills. Not only are there these assets, but there is real silence, and, therefore, one has performance which can be used. On a first-class road the steering up to the speeds I have used is really good. On roughish roads the back wheel tends to aviate a certain amount and throw one forward. This is not bad; there were quite a few stretches of French and German roads where 'Ambleside' and I kept up 65 to 70, and these roads, remember, were not so good as the average English main road. Cornering on the 1,000cc Ariel has surprised me. She rounds them like a first-class 500—there is nothing of the monster needing manhandling about this new production, and, moreover, the machine is far easier to handle on rough tracks than I expected. Incidentally, I am using a 4.00-18 (26×4.00in) studded Dunlop rear tyre and a 3.00-21 (27×3.00in) Dunlop Racing Ribbed front tyre, the former at 15-16psi and the latter at 18-20. In spite of the small-section front tyre my wrists suffered not one atom from frontwheel hammer. As this is the first time, so far as I can recall, that I have not had tired wrists after long runs with a 3.00in section front tyre, the fact must be put down to the efficiency of the rubber mounting employed for the Ariel handlebars. Were the machine not so much a top-gear mount one might criticise the gear change. Care and time are required if one is to make a completely silent upward change. The clutch, which frees perfectly under all conditions, seems to keep on spinning, and therefore one is liable just to crash the change slightly. No harm can, of course, result, but care is needed if on upward changes the gears are to slide into mesh noiselessly. Oil consumption is minute. Probably it is in the region of 4,000mpg, so the only real cost is that of draining and refilling the oil tank. As regards fuel consumption, this, speed for speed, is much

the same as with any other motor cycle. At an average of about 45mph on the straightahead French roads the machine was covering roughly 60mpg—more rather than less. What else can I say? Oh, yes! The brakes are good. As I like a finger-light front-brake control I shall probably fit a longer front-brake cam lever. The rear brake, assuming one uses the fulcrum screw adjustment is, to my idea, magnificent. Starting is effortless when the engine is warm, but the engine can become very stiff when cold. Consequently, when it is cold I always free the clutch and push the pedal halfway down. thus using the greater leverage of the latter part of the kick-starter stroke. Probably the engine will get freer as the miles tot up. The whole power unit, incidentally, has remained exceptionally clean. So far, I have not carried out a single adjustment to it except to remove a speck of solder from the pressure release valve, and once to tighten up the cap of the oil filter in the crank case and the bearing cap on the off side. These latter were the only parts that worked even a fraction loose during the 2,118-mile Continental trip. The sole troubles were failure of the dipping switch, broken dipping switch cable, the clock becoming soaked internally and ceasing to work, and my finding the main head lamp bulb would not work, but did so after I had removed its front and replaced it—this was following heavy rain. One other thing: the horn push, sodden after a thunderstorm, operated of its own accord. Over and above seeing to those of the foregoing items I could attend to, I greased up, adjusted the brakes, took up the initial stretch in the rear chain (which, so far, has kept in magnificent condition—just nicely lubricated from the primary chain case), and removed the soupçon of side-play that had developed in the forks. I set off to the International delighted with the machine. I arrived at Freudenstadt delighted, and now well, if such a thing is humanly possible, I am more than delighted."



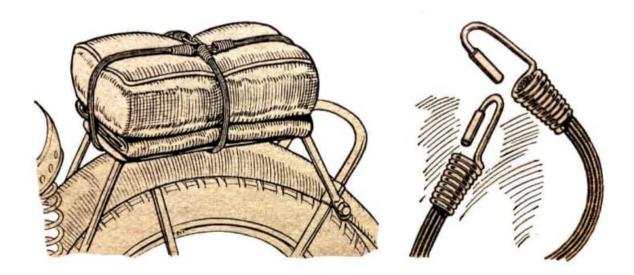
"This fine Bavarian Alpine scene looking up the Amber Gries Valley near Oberammergau shows 'Ambleside' and 'Torrens' on their 'International' mounts."

"IN THE SIX DAYS A German army team won the club team prize. There may not seem to be very much in this until one remembers the fact that the team in question beat the Scottish Rudge Club's team, which, so far as its men and machines were concerned, was none other than our winning International Silver Vase team. Had the German Trophy team reached the speed test at Füssen with all their machines running perfectly and no marks lost, it is more than likely, according to those in the know, that there would be no question of the ACU organising the trial in 1937—the Germans would have won. The machines which Britain puts in the field must be able to take on all corners. This alone means that the question of men and machines should be tackled now, and not left even until the spring, since then certain makers will have their experimental departments working at full pressure on their TT machines."

"MORE AND MORE interest is being shown in motor cycles with large engines. Registration figures prove this. Whereas the small-capacity motor cycle grew in importance a few years ago, now, with the increased buying power of the motor cycle public, thoughts automatically are directed towards the pleasure to be gained from larger and more luxurious types of machine. Used with intelligence, high power output is a safety factor. All know that rapid acceleration is sometimes as valuable as first-class brakes. This is not the main point, however. When a man has a machine with a comfortable reserve of power and an unusually good top-gear performance, there is less temptation to take risks. There is, for example, no possible reason to rush hills, and corners can be rounded slowly, since with a flick of the twist-grip—probably without even a change of gear—the machine will quickly be back at its 'touring' speed. The big, docile type of engine can be an even greater blessing than is generally realised. Also, it

has the advantage that in all normal circumstances it is running well within its capabilities. We are glad, therefore, to see that manufacturers are once again making a real effort to develop the large-capacity motor cycle for solo work."

"I HOPE THE FOLLOWING tip I picked up from Miss Marjorie Cottle is fresh to the majority. You know how difficult it sometimes is to strap things on your tank, and even fixing, say, waders on the carrier is not always too satisfactory, even with those webbing straps that have patent buckles which enable the straps to be tightened up in any position. Well, Miss Cottle's scheme is to employ the stranded, braided rubber you find in chest expanders. The sketch shows the rubbers I mean. If two of these are pulled round the carrier and the waders, and the ends of each expander hooked together, the waders are held perfectly safely; moreover, the braided rubber does not harm the enamel."



"A tip from Miss Marjorie Cottle—rubber chest expanders to hold your kit securely."

"WHAT EXACTLY CONSTITUTES the charm of 'pleasure' motoring? It is surely a compound sensation. First and foremost, there is the joy of 'going to places and seeing things', which no congestion destroys, although traffic congestion can impair it.

Secondly, there is the entire change of mental occupation, which expels from the mind the worries, the distastes and the tedium often associated with daily employment.

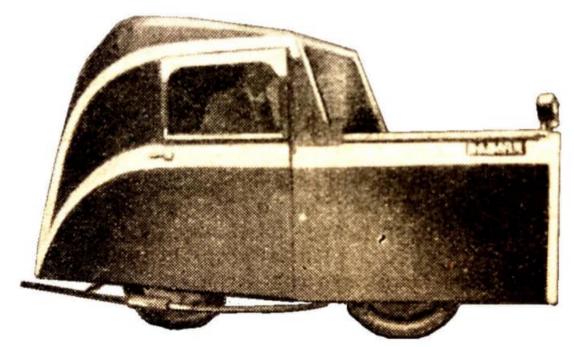
Thirdly, there is the sensation of power and freedom. On the road I am for the moment my own boss, and I control a potent engine. Fourthly, there are the physical sensations of motion. Borrow wrote of the wind on the heath\*. We in our saddles savour swerve, acceleration, speed, balance, sun, wind, scenery, and sometimes the tests of manhood imposed by fog, slime, cold, rain, and the like. Fifthly, there are the trimmings; the people we go to see, the buildings or views or sporting events which we witness, the food and the drink which always taste different when we are away from our own roof, and for which motor cycling bestows such a mighty zest; the snaps we take with our pocket cameras; the yarns we pick up along the road; the little mechanical troubles we

encounter; the reminiscences which we pile up. It seems to me that heavy traffic congestion and the comparative dullness of great arterial roads subtract from these composite joys, but can never wholly destroy them. My tame prophet thinks that motoring for the sake of motoring will gradually surrender to the mass-produced baby plane, and that our grandchildren will come to regard both cars and motor cycles as we view trains, taking their pleasure in miniature Flying Fleas. I wonder? It seems to me that the alleged pleasures of flying are almost exclusively technical; and that flying may intrinsically be defined as war was brilliantly defined in 1916 as 'periods of acute boredom, punctuated by moments of extreme fear!'"

\* George Borrow—"There's the wind on the heath, brother; if I could only feel that, I would gladly live for ever."

"THE PHOTOGRAPH SHOWS a 500cc AJS machine covered with a saloon body made of plywood and sheet metal. There is a full-size car-type door on each side and the driver (rider) is completely enclosed except for an open floor. The rear of the machine has a shelf across, and a large quantity of luggage was being carried. The photograph was taken at the entrance to the Menai Suspension Bridge.

Edward R Hall, Middlesbrough."



"The really totally enclosed solo machine photographed by Mr ER Hall."

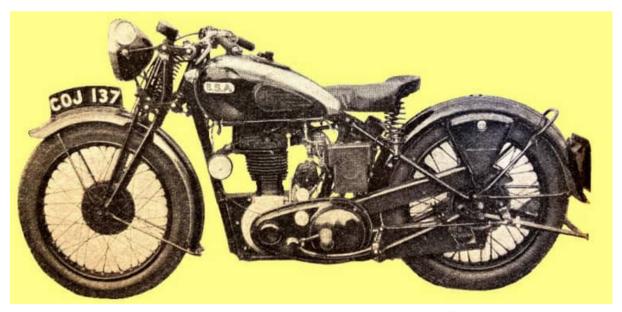
"I AM GLAD TO FIND that there are still a number of motor cyclists who think, as I do, that the real pleasure of the game lies in the amount of new ground one can cover, rather than in achieving unbelievable and unbelieved speeds over a five-mile stretch. Last October I rode from London via Dover, Calais, Rouen, Bordeaux, Biarritz, Burgos, Madrid, Seville to Algeciras and back, covering 3,300 miles in 12 days. The longest stretch non-stop was 688 miles in 36 hours. My mount was the outcome of years of race

and trials 'breeding', and my experience was such that my next long-distance model will be the product of a firm who thinks that the TT is a temperance meeting and that all trials are held in the Old Bailey. Certainly fairly fast (say a sustained 40mph) touring seems to find out more weaknesses on the model than racing ever rectifies, for the obvious reason that touring is done with a production job and not on a tool-room turnout the sole resemblance of which to one's own model is the tank transfer. **H Johnson**, Hayes, Middlesex."

"TWO FRIENDS AND I toured Spain this summer. The object two of of our tour was to make a climb of the Pic Veleta in the Sierra Nevada—the highest motor road in Europe, some 11,000ft. We climbed to 10,000ft before deep snow-drifts made further ascent impossible. The long climb round innumerable hairpin bends and at times in thick clouds was a new experience. The descent—we coasted some 23 miles—gives some idea of the difficulty of building such a road. The tour via San Sebastian, Madrid and Granada occupied 12 days, and the total mileage was 2,900, giving an average daily mileage of 290. The last day's run—Cahors to Le Havre—was the longest, a distance of 430 miles. The machine, a Francis-Barnett fitted with—let it be whispered—a two-stroke engine, gave no trouble at all and was very comfortable to ride. Petrol. consumption averaged well over 100mpg and the oil used in the petroil system of lubrication proportionately low. I might say that the engine—my first experience of the Villiers—was a revelation, and that when dismantled for decoking was found to be in perfect condition except for a perfectly normal amount of carbon deposit. Usual disclaimer. Barnetti, SE6."



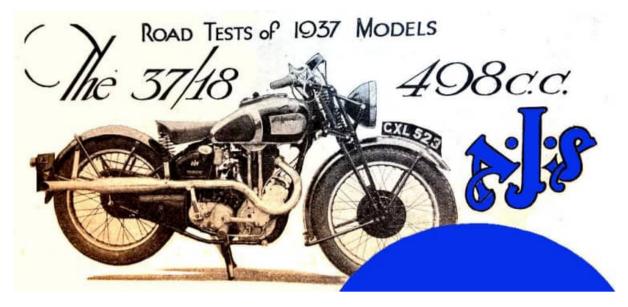
"WHILE THE DESIGN OF the 500cc ohv BSA has been little changed over a period of several years, for 1937 there are a number of interesting alterations, chief of which concerns the engine and the frame. In the case of the former the crank case sump has been replaced by an oil tank carried on the seat pillar tube. A single, tapering, flat aluminium tube replaces the twin push-rod covers of the past, while the valve gear is completely enclosed. The frame is entirely tubular in construction, and although similar in design to previous years, it now has single front down and seat pillar tubes. The model under review is known as the M22 496cc ohv Sports BSA. It has a wide, comfortable saddle that is well positioned in relation to the footrests and handlebars. The latter, when turned in their mounting, provide a variety of positions, varying from 'racing' to 'upswept touring'. Both clutch and front brake levers can be adjusted to suit the best wrist angle. Likewise, both the brake and gear-change pedals can be set to suit the rider's requirements. Starting from cold was not quite so good as it should have been. It took several kicks before the engine fired and settled down to a steady tick-over. This small trouble was in all probability due to a slack throttle cable, which made it difficult to find a throttle opening just off the pilot jet. Once warm, the engine ticked over with clocklike precision and with a surprising absence of mechanical clatter. In fact, throughout its range of revolutions the engine was extraordinarily quiet and smooth, with a marked freedom from vibration. Coupled with a really efficient silencer the new BSA power unit is a pleasure to use. The foot gear-change was light in operation and had a conveniently short travel. On occasions, however, the lower gears showed a tendency to engage only partially if care was not taken to use the maximum travel of the gear lever.



"Both top and bottom runs of the chain are adequately shielded."

Particularly was this the case when selecting bottom gear with the machine stationary. The clutch was both light and smooth in operation, but seemed to take up the drive in a rather sudden manner, a fact which became less apparent as the test proceeded. On

the road the new BSA had the most excellent manners. The machine could be driven hard without showing signs of tiring or fussiness, and, thanks to the mechanical and exhaust silence, without attracting undue attention. The engine is of the 'slogging' variety; it would pull a high gear up a steep hill without protesting, provided an ethylised fuel was used, Over difficult going it was possible to make the engine 'plonk' in a surprisingly slow manner, while the clutch could be ignored when picking a course round or over boulders. With the well-selected gear ratios the BSA showed surprisingly good acceleration. From a standing start, and going right through the gear box, a speed of 64mph was reached at the end of a quarter of a mile. In bottom gear (14.3 to 1) the maximum comfortable speed was 25mph. For traffic driving the second gear (9.9 to 1) was ideal; it enabled a restart to be made without having to slip the clutch unduly—no more than for bottom gear—and the machine could then be accelerated to a comfortable 45mph. In this ratio it was possible to accelerate from 15mph to 30mph in four seconds. Because of the flexible qualities of the engine the BSA would run very smoothly in top gear and accelerate evenly from speeds in the neighbourhood of 20 At the other end of the scale it could be driven up to 61mph in third gear (6.3 to 1) and 70mph in top (4.8 to 1). These speeds were attained and maintained over a level concrete surface with the rider partially lying down. There is no doubt that they could have been improved had a racing attitude been adopted. Steering at high speeds was excellent. 'In fact, both steering and road-holding were of the highest order. Corners could be taken in one's stride regardless of the road surface. Another good feature of the BSA was the braking. Both rear and front brakes possessed that desirable spongy yet efficient action, coupled with lightness in operation. And they enabled the machine to be brought to a standstill from 30 mph. in 38ft. Throughout the test nothing was done to the machine other than setting the controls to the rider's own requirements. An important feature was the engine's freedom from oil seepage. At the end of an extended test them was no trace of oil at any of the crank case, timing case or valve gear joints. The Lucas Magdyno lighting set incorporated voltage control, which ensured that the accumulator was not overcharged. In conclusion, the new BSA can justly claim to be even better than previous models that have emanated from the famous Birmingham factory."



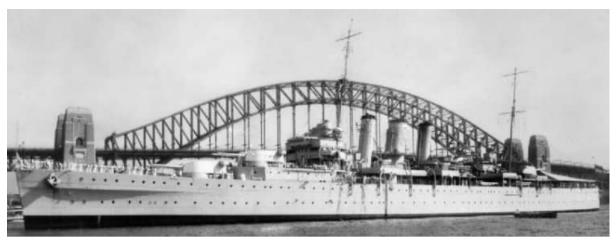
"AMONG THE MANY good characteristics possessed by the new 498cc AJS, there are two which stand head and shoulders above the rest. They are the steering and roadholding, which in this model are delightfully combined. The steering was at all times positive; at a walking pace there was no need to juggle with the handlebar to retain balance and when flat-out, even on bumpy surfaces, the steering remained perfectly steady. Cornering was absolutely effortless. There was never any feeling that a bend could not be taken, and the model was frequently laid over at alarming-looking angles with a complete sense of security and stability. The steering is undoubtedly assisted in this respect by the very good road-holding. The rear wheel of the AJS holds the ground like the proverbial leech. Under normal conditions there was a complete absence of rear wheel bounce and even on bad roads movement of the rear wheel never affected the steering. This characteristic was particularly appreciated on bumpy bends. The Model 37/18 is fitted with the tension springs that are used on the forks of the TT models. The forks are extremely smooth in action and have a very wide range. At no time during the test did they clash or bottom. With the new duplex fork damper they can be set to any desired 'strength'. The engine of the Model 37/18 is well in keeping with the steering. It is of the dry-sump type and has totally-enclosed valve springs and valve gear. As a result, the engine is mechanically very quiet. The valves could not be heard at all when on the road and only a trace of piston slap was noticeable when the engine was cold. At normal speeds the exhaust note was unobtrusive but a rather healthy crackle could always be produced by rapid acceleration in the gears. Starting at all times was very easy. All that was necessary was to close the air lever fully, and, if cold, to flood the carburetter. When warm the engine would idle at a very low speed with the ignition retarded, and at no time was there any tendency for the engine to stall. Flexibility was another of the engine's good points. In top gear (4.88 to 1) with the ignition retarded the machine would run without snatch at 13mph, and could be accelerated away from this speed without using the clutch. From low speeds acceleration was above average. Acceleration from 15 to 30mph in third gear (6.3 to 1) took less than five seconds, and in

top gear only seven seconds. In bottom and second gears the time taken was the same—some three and a half seconds—for the engine was past its peak at 30 mph in first gear. Higher up the speed range the acceleration was equally good. Speed could be increased from 20 to 50mph in 9\sec in third gear and in 13sec in top gear. Going through the gears, 65mph could be reached in a quarter of a mile from a standing start. In any gear the engine could be throttled right down, and in bottom the machine would lose steering way before snatch set in. This feature was particularly useful when negotiating trials going, and it may be said that the machine has all the characteristics of a good trials mount. The speedometer fitted to the AJS proved on test to be approximately 121/2% fast throughout its range, and the figures given, for the acceleration and maximum .speed tests are the corrected ones. On the speedometer the maximum figure reached in top gear was 83mph, which represented an actual speed of 71mph. Corrected maximums in the other gears were: third, 63mph; second, 45mph; bottom, 30mph. When these maximum speeds were taken the rider was heavily clothed in waders and poncho, and as there was no pillion seat on the machine, a crouching attitude was adopted and not a position lying along the tank. The engine was extremely smooth in all gears, and vibration only became apparent when the engine was peaking in the intermediate ratios. No vibration was noticeable at any speed in top gear. On hills the machine maintained its speed well, and on long main-road climbs the engine showed no signs of tiring. Always there was a reserve of power, and by changing to a lower gear the machine would have useful acceleration for overtaking slower traffic. Any high-performance machine such as the AJS should have powerful brakes, and the 37/18 shows up favourably in this respect. The front brake was extremely powerful and using this brake alone a crash-stop could be made from 30mph in a fraction over 40ft. Used together, the brakes would bring the machine to a standstill from 30mph in 31ft. Both brake controls are well placed, and the rear brake could be used without the rider removing his foot from the nearside footrest. No criticism can be made of the positioning of any of the controls on the AJS and all were light and smooth in action. The clutch did not drag when engaging gear from rest, and the foot gear-change was fast in use and always positive. For a tall rider the handlebars are set a little far back, with the result that there is a tendency to slip off the rear of the saddle. Otherwise the riding position is comfortable. Footrests and handlebars are adjustable, the latter through a very wide range, and the saddle has a fair amount of movement before it bottoms. During the test it was found that the rider's right wader touched the exhaust pipe when in the normal position on the footrest. Throughout the test the power unit kept clean, and apart from a small seep of oil from the base of the push-rod tubes there were no oil leaks. The new valve enclosure helped considerably in this respect. Altogether it may be said that this new 500cc AJS has excellent steering and road-holding, first-class brakes and a silent and flexible engine."



"Here is a distant view of Kilimanjaro, which is Africa's highest peak. The picture was taken during an adventurous motor-cycle expedition in Africa by a number of Puch riders. Camping enthusiasts especially will be envious of their luck..."

"SLOWLY, AND WITH INFINITE caution, the *Dorsetshire* edged into the side of the quay at Basra...Blithely we swung along the dusty road, our shirt-sleeves rolled up and topees at the slant. What did we care? Half a thousand of the Army were ashore for the afternoon after three weeks at sea, so to blazes with regimental smartness! At the RAF cantonment a swimming bath awaited us, and there we washed off three miles of road dust. We emerged fresh and invigorated, and looked farther afield. The Naval sloop there, could we look over it? We could, and the narrow gangway was packed tight as a multitude of khaki-clad figures tried to board at the same time. Preparing to join in the scramble, I was struck by a sudden idea and questioned an RAF policeman close by. He immediately became friendly, and, pointing to the canteen, replied, 'You will find some in there.' I went into the large store bungalow, and on a table at the far end, under a whirring fan, were two neat stacks of papers. One was the overseas edition of a famous London daily—but hang that! The other pile was made up of six familiar blue-covered weeklies. 'Probably a year old,' I thought sadly, but my luck was in. They dated consecutively up to the previous week. The sloop was forgotten; an ice-cold pint from the bar, the armchair drawn up under the fan, and once again I communed with friend 'Ixion' and devoured the test reports of the latest models. In imagination, I was again riding a motor cycle along the lovely English highways. The bugle sounded at last, but no matter, I had enjoyed my outing. A new land, a swim—and all the editions of The Motor Cycle one had missed What more could a man wish for? **DLR**."



*HMS Dorsetshire* was an 8in gun county class cruiser. She was sunk by Japanese dive bombers in the Indian Ocean in 1942 but most of her crew were rescued; let's hope 'DLR' was among them.

"RECENT REGISTRATION FIGURES reveal that there are 22,395 motor cycles in New Zealand."

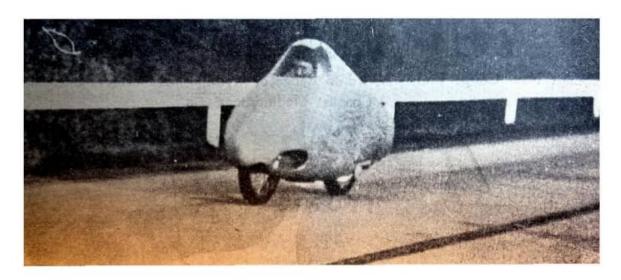
"HEAVIER PENALTIES FOR German motoring offenders are being considered by Herr Himmler, German police chief, who has ben given two years' 'free hand' to deal with the road accident problem."

"WILL THE DAY COME when every motor cycle on the market is equipped with full weather protection, ie, totally enclosed engine and gear box, legshields, and wide-valanced mudguards? The question is prompted by the fact that during the past few weeks we have received numerous letters from readers describing their often ingenious and certainly praiseworthy efforts at improving the 'weather proofing' of their machines. For several years touring models have been available with full weather protection—and excellent machines they are too—and now some makers of sports models are fitting such items as gear box covers, while wide-valanced mudguards and completely enclosed valve gear are featured in most of the 1937 programmes. This tendency is all to the good, for, apart from the pleasure of arriving at one's destination clean and dry in the worst of weather, the less a machine smacks of the race-track the greater are the rider's chances of using its performance to the full without attracting the unfriendly attention of the police or of other road users."

## 180 m.p.h. on a Fíve-Hundred!

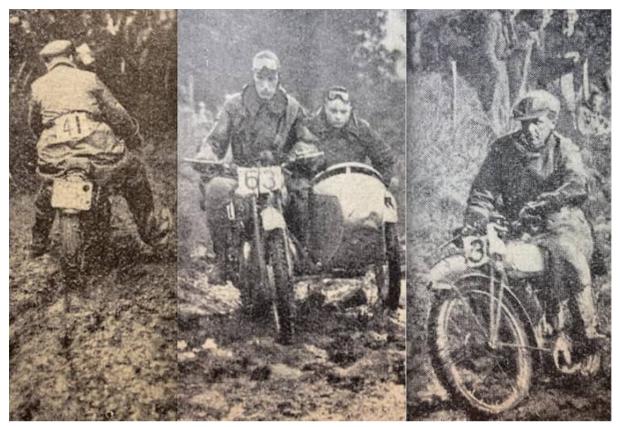
"IT SOUNDS FANTASTIC—169.14mph on a 500cc motor cycle. But there, on Monday afternoon, was the cable. Eight world's records broken. Best speed 272.2kmh. Those in

the know were delighted, but not amazed. Had not Henne and his extraordinary-looking BMW been seen on the Munich-Landengrenze autobahn on the previous Monday travelling faster than ever man had travelled on a motor cycle before? Yes, he was seen near Rosenheim at 6 o'clock in the morning with a completely streamlined 500cc transverse-twin. A week or more previously Herr Sleischer, the BMW team manager, had stated that they were finished with the 750cc model—the supercharged 500 was developing considerably more power than the old engine, although the latter was half as large again. Yes, BMWs were ready, and with a completely streamlined machine instead of the faired, semi-streamlined mount. The body, minus the lid, is very much after the style of a torpedo; the rider is completely enclosed and looks through a small windscreen. Handlebars—everything except the bottom of the wheels—come within the body. What was to happen to the rider when he wished to stop? At each side a small wheel was fitted after the style of the Whitwood monocar. When the rider was reaching a standstill he must let down this retractable undercarriage—if he remembered to do so. For the 6am practice on the autobahn near Rosenheim the detachable lid was not fitted. In any case it was not possible to find out the ultimate speed of the machine, since, as was mentioned in our description of the International Six Days', this particular autobahn consists of a series of slight curves introduced to obviate the monotony of a straight-line road. A 1½-mile straight was chosen. Un-official timing alleged that Henne was averaging the amazing speed of 202mph. What would he do on a dead straight road with the lid or roof in position and the machine wound right up to its maximum? Those in the know waited expectantly for the special little records meeting to be held on the Darmstadt-Frankfort autobahn which is, if possible, straighter than an arrow. EC Fernihough was there by invitation with his supercharged Brough Superior. He had intended to attempt records in Belgium, but was invited to join in at Frankfort. He set the ball rolling by breaking Henne's standing-start kilometre record in the 1,000cc class, raising it from 94.195mph to 98.91mph. A strong wind was affecting matters. In one direction he achieved 113mph—from a standing start! Later on he was to attempt the world's maximum speed record. Henne took a hand. Those who had watched him at Rosenheim anticipated something verging upon the meteoric. Never even during the practising at Rosenheim had any vehicle appeared to them to travel so fast. Apparently the unofficial timing was—well, 'unofficial'; nevertheless, Herr Sleischer was secretly looking forward to a speed of approximately 180mph. The amazing streamlined projectile, only about 2ft 8in in maximum width, was to sweep past at a speed 20mph higher than that of the world's maximum motor cycle speed record. Less than 500cc and the machine covered the flying kilometre at 180.197mph. Again, however, the wind entered into things. The mean speed was down to 169.14mph. Think of it, though, the world's maximum speed record raised from 159.10mph to 169.14mph—smashed by a machine of only 500cc. And a one-way speed of over 180mph—an amazing, magnificent achievement of man and machine."



"Faster than ever! Ernst Henne on the streamlined all-enclosed 500cc BMW, on which he raised the world's maximum motor cycle speed record to 169.14mph."

"AMAZING! NOT ONLY WAS the weather for last Saturday's West of England Trial dry, but the hills—the majority of them—were also dry. From this it might be assumed that the famous trial was easy. Not a bit of it. Mrs Anning, the organiser, had found some fresh hills, and not a single competitor got round the 70-mile course without losing marks. The best was Len Heath (497cc Ariel), who thus wins The Motor Cycle Trophy for the second year in succession. As usual, hill followed hill in rapid succession. The first, Broadway, was encountered only 3½ miles from Newton Abbot; the starting point. In all, there were no fewer than 13 observed hills, plus a couple of special tests, which were included in order to settle any ties."



L-R: "WR Latchem (348cc Velocette) footing through the deep mud on Manor Hill. "HJ Flook (499 BSA sc), who made the best sidecar performance, negotiating the rocks and mud on Mountsland. "GF Povey (348cc Triumph), has an awkward moment."

"THE SPECTATORS AT A GYMKHANA recently staged by the De Havilland Auto Club were amazed to see a motor cycle and sidecar careering round the field without driver. The outfit, it was alleged, was controlled by wireless, and sure enough there was a kind of receiving installation attached to the sidecar. Yes, dear readers, the thing was a gigantic hoax, for stretched at full length in the sidecar and covered with a canopy was a club member, Mr J Wakelin, and he was controlling the outfit by means of wires attached to the steering gear. And how did he see where he was going? Easy! A home-made and cunningly disguised periscope was fitted in the 'roof ' of the sidecar. [Some 40 years later I was at a rally where a similar stunt was staged. In this case the outfit was ridden by an arena performing a few stunts; then the rider 'fell off' and the combo chased him round the field before heading straight for the crowd and swerving clear at the last moment. The hidden driver looked out through a grille in the front of the box sidecar, which was a bit simpler than rigging a periscope. But, 1936 or 1976, it was a good stunt.—Ed]

"LAST SATURDAY AFTERNOON the Chester MC began its most ambitious week-end—a veritable festival of speed for enthusiasts in the North-West. The first session was on the sands at Wallasey with 32 competitors, and the second phase was the 'mountain grass track' on the following day, at Crewood Hall, in the Delamere Forest, with 75

names in the entry list. Half a dozen riders were down for both events, for the first Delamere meeting had been so well liked and so well spoken of in Cheshire, that some of the star sand racers had decided to have a cut at this grassy mountaineering business: Two factors make for success with the Chester club; they have some enthusiastic workers (not the least Mr Speed Secretary Bill Smith!), and once a meeting starts there is no messing about—all races start promptly. THE SAND RACES A five-lap handicap produced a very mixed field, ranging from an ancient side-valve 680cc twin Zenith outfit, via a 'George Dance' sprint 'Beam, a new and shiny Triumph Tiger, various AJS and Norton push-rod 'specials', to the pukka racers. Moore laughed aside his handicap and won easily from scratch, so for the 10-lap race the handicapper put him a full three minutes behind the field. But things like that don't bother sand-racer Moore. Riding superbly, rounding the bends steadily and accelerating out of them like a projectile, he was leading after seven laps and finished with a margin that made the handicapper think! This was a strenuous race and the leathers of J Dunne and E Lambert both seemed to have come unput in the middle of the back—and for such a cold day body belts were certainly indicated! THE GRASS TRACK EVENTS. After a hectic clearing-up on the Wallasey sea-shore, not to mention one car abandoned to darkness and the rising tide, or the desperate scaling of the 45° sea wall by Colin Edge's Austin 7 lest the car be completely lost in the quicksands, the ropes and flags were duly transported to the Mountain grass track in the Delamere Forest. The club stalwarts were at work with the dawn, the morning was glorious, and if the meeting was a few minutes late in starting that was because competitors found 12 noon too early in the morning! The grass was dry, so the steep descents and tricky bends and switchbacks concealed no treachery, and even though the sun went in at the first sound of open exhausts, there was nothing in the weather to grumble about. With a dozen events (some with lots of heats) and so many competitors it was necessary to run up to nine men in a heat, and in spite of such bunches there were no serious difficulties. Spills there were, although the worst of them were in events that were not too densely packed...The final was thrilling. First Jackson (349cc Rudge), then Wilkinson (249cc OK Supreme), then Jackson. Wichman (494cc Douglas) dropped out and Moore (498cc Excelsior) crept up. The leaders were swerving the curves in hair-raising fashion, almost wheel to wheel, and leaving the ground over the bumps like kangaroos in a hurry. And, once again Wilkinson's final spurt was just too late, and for the second time he failed to win by a fraction of an inch. The sidecar race was not blessed by many starters, in spite of some optimistic entries, and it was chiefly remarkable for RL Graham's (499cc Rudge sc) challenge to W Bibby (588cc Norton sc) and the weird alignment that A. Melville's Rudge outfit assumed when cornering."





"Which way do we go? No 71, W Broad (348cc Velocette) and No 23, WG Dehany (348cc Velocette), seem to have divergent ideas as to the right direction to take in the ten-lap unlimited cc event at Wallasey. (Right) "Crossing the finishing line wasn't good enough for these two competitors—they succeeded in flying over. On the left is RL Graham (499cc Rudge), and on the right, CE Wichman (494cc Douglas)."

"OCTOBER 10TH WAS 'Hutchinson Hundred' Day at Brooklands; it was also the last meeting of the 1936 calendar of the BMCRC. Small wonder, then, that there were huge entries...[during the four handicap races] there had been many comings and goings from the pits just past Chronograph Villa, for 24 of the competitors in the Hutchinson Hundred had signified their intention of making a stop to refuel during the race, and had been allowed one minute on handicap for this purpose. Shortly before 4pm the big field pushed out to the line. There were so many of them that they had to make four lines at the side of the track, leaving enough room for the limit men to ran through. One by one the riders got away. Some people were using the huge petrol tanks that are an annual feature of the 'Hutchinson', but the majority were using standard size tanks. At last the fourth-line men pushed up to the starting line, and after some of the limit men had completed several laps, PR McIver (499cc Vincent-HRD), CD Allen (490cc Norton), and JW Forbes (490cc Norton) prepared for the word 'Go'. Their's seemed a forlorn hope, but when they had settled down they began to put in some fast laps. Among the smaller machines SH Goddard's 246cc OK Supreme-JAP seemed to be more than holding its own, while R Harris (490cc Norton) and DC Minett (499cc Rudge) were obviously not losing time anywhere. As the race progressed the field rapidly thinned out and retirements were frequent. J Clementson (346cc AJS) was unlucky enough to pick up two nails in his rear tyre on the 18th lap, and H Grinstead (246cc Royal Enfield), after being overjoyed when his motor found extra speed after some slow laps, toured in with a tightness in the 'works' department. On his 33rd lap







L-R: "H Grinstead (Royal Enfield)—compression ratio unknown! Lest we forget—Pope 'did' ride a Norton! Of course, one of the most interesting features of the 'Hutch' is the snappy pit work!"

Goddard had a useful lead. He was lapping consistently around the 85mph mark and, provided his oil supply held out, looked a comfortable winner. At this stage his nearest rivals were on their 32nd laps. They were R Harris (490cc Norton); who was lapping at only a little less than 100mph, and DC Minett (499cc Rudge), who was only fractionally slower. H Laird (1,096cc Morgan), JB Moss. (348cc Norton), and CD Allen (490cc Norton) were also fast pulling back the start they had given Goddard, and Laird put in one lap at 100.61mph to gain a Gold Star. But with only four more laps to cover Goddard's lead proved too much and he crossed the finishing line almost a minute ahead of Harris, having covered the 100 miles at the excellent speed of 85.87mph. Harris was followed in quick succession by DC Minett (499cc Hodge), JB Moss (348cc Norton), CD Allen (490cc Norton), and CK Mortimer (348cc Norton). After 100 gruelling miles only 30 seconds separated these five riders! Now all that remained was for the rest of the runners to finish. K Bills (490cc Norton) completed the course with his silencer scraping the ground, and poor Henry Laird, after so many good laps, limped home with an engine that sounded decidedly flat. Only 10 riders completed the 100 miles, and the last men were flagged off as dusk was falling. Another successful Hutchinson Hundred was over. THE FINISHERS: 1, SH Goddard (246cc OK-Supreme-JAP), 85.87mph; 2, R Harris (490cc Norton), 98.04mph; 3, DC Minett (499cc Rudge), 97.85mph; 4, JB Moss (348cc Norton), 93.09mph; 5, CD Allen (490cc Norton), 100.31mph; 6, CK Mortimer (348cc Norton), 94.50mph; 7, NB Pope (348cc Norton), 94.59mph; 8, H Laird (1,096cc Morgan); 9, MA Clement-Smith (246cc New Imperial); 10, R Board (246cc Excelsior). Bacon Award (fastest competitor irrespective of the winner), 0D Allen (490cc Norton), speed, 100.31mph."





H Trevor Battye (348cc Velocette) and MD Whitworth (348cc Rex Acme) chase CM Gatley (348cc Chater Lea) round the hairpin bend at the Fork, while Ron Harris (490cc Norton), the ultimate winner, cuts the bend close behind. (Right) "EG Mobbs (348cc Velocette) and MD Whitworth (348cc Rex-Acme) have a private tussle during the course of the Hutchinson Hundred."

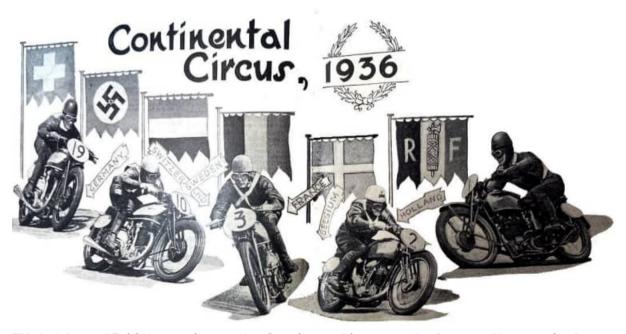
"FACTS AND FIGURES revealed by an analysis of the Motor Cycles and Three-wheelers on the British Market. Capacity: 150cc, 8.4%; 250cc 26.5%; 350cc, 19.3%; 500cc, 28.1%; 600cc, 4.6%; 1,000cc, 9.5%; over 1,000cc, 3.6%. Engine type: single-cylinders, 83.7%; twins, 13.4%; three-cylinders, 0.3%; four-cylinders, 2.6%. Valve gear: side-by-side, 17.0%; overhead, 58.7%; ov+erhead-camshaft, 6.3%; two-strokes, 17.7%; other types, 0.3%. Gear operation: hand, 27.5%; foot, 64.2%; hand and foot, 0.3%; optional, 8.0%. Number of gears: single-speed, 1.2%; two-speed, 0.3%; three-speed, 21.3%; four-speed, 72.7%; optional, 4.3%. Primary drives: oil-baths, 63.0%; unit construction, 9.5%; fully enclosed, 16.4%; partly enclosed, 9.8%; gear, 1.3%. Ignition: magneto, 67.2%; coil, 17.4%; flywheel magneto, 13.8%; magneto or coil optional, 1.6%. Average price: 150cc, £26; 250cc, £41; 350cc, £49; 500cc, £64; 1,000cc, £95; Over 1,000cc, £109. \*Including three-wheelers.

"HAVE YOU EVER WANTED to try your hand at riding round the vertical wall? Frequently, when I go to a local fair and come across one of these exciting shows I find a feeling of nausea coming over me at the thought of it. But last week I heard of four bold lads of the Chester Club who visited a local fair where there was a vertical wall riding act. I gather that those lads tried their hands at 'wall riding' on an ancient 250 Raleigh and gave the locals something to talk about for a few weeks. They had only one or two minor spills and received a terrific ovation from the huge crowd that had gathered to see the fun. Messrs C Edge, R Ross, Woods and McLellan were the heroes, and I take off my hat to them."

"OFFICIAL FIGURES SHOW that every year hundreds of thousands of pounds are paid by motorists in fines for technical and other offences. But these figures do not by any means represent the full extent to which motorists are mulcted of their hard-earned cash. In a very large number of motoring cases the police, on obtaining a conviction, are granted costs against the defendant, who in effect has to pay a double fine. This is bad enough, but an even greater injustice is the very prevalent practice of dismissing a case, yet still awarding costs against the successful (?) defendant. There can be no possible argument about it—a defendant must be either guilty or not guilty. If he is found guilty, then he cannot grumble if he has to pay a fine and (perhaps) reasonable costs. On the other hand, if the case against him is dismissed, he is entitled to leave the court without a stain on his character and—equally important—without his pocket being lightened by the payment of what is termed 'costs', but what is nothing more or less than a mitigated penalty."

"THE AVERAGE RIDER'S OBJECTION to handlebar muffs is that the sensation resembles putting on a sock. Your hands feel rather 'trapped' when inside the muff, and if you are riding with one hand off, it is too much of a job to insert the hand back in an emergency. The aluminium shields with which some of us experimented a few years ago were extremely convenient, efficient in keeping off cold wind and penetrating rain, but bent or broke beyond repair if the model was dropped. Probably the ideal is a leather shield for each grip, L-shaped in cross-section, and mounted on a bendable metal frame. You can remove or replace your hands without the tiniest difficulty; the vertical part of the shield keeps off wind; the horizontal part keeps off rain; and if the model drops you can bend the contraption straight again in no time. I wonder that no accessory dealer pushes something of the kind. So far, I have only encountered it as a home-made gadget."—

Ixion



"Upholders of British prestige on the Continent this year—the famous Norton trio, J Guthrie, FL Frith and JH White. Two more star riders who have done their bit for Great Britain—HG Tyrell Smith (Excelsior) and RA Mellors (Velocette)."

"THIS SUMMER, AS WAS the case last year, I have been fortunate enough to see more motor cycle road races than any other individual of the British Technical Press. For two racing seasons it has been my privilege to watch a small—and decreasing—band of British riders compete against the crack riders of the European nations. In most instances we win, but sometimes the glory is not ours. I often wonder how many people outside the racing game realise precisely what the few patriotic firms and the men who ride for them have had to face this year in the leading Continental road races. Probably. like a friend of mine, you think that British machines and riders win because they have no real opposition and that it is only bad luck when they do not win. While that probably could be called the state of affairs a few years back, it is all very different now. You see, in such countries as Germany and Italy every incentive is offered to racing firms and riders to do their utmost to win, almost, I might add, regardless of cost. The Governments of those countries are far seeing enough to realise the benefit to trade that such victories bring. We, on the other hand, have been so used to winning that we fail to appreciate the value of our victories. When a Continental rider wins he becomes a national hero. What a different state of affairs exists here! Little or no encouragement is given. Our riders return unheralded and unsung, while those of their Continental rivals who win are given the freedom of their respective towns, and their victories are emblazoned throughout the countryside. The net result is that very few British manufacturers find it worth their while embarking on a racing programme. Only in a few Continental countries is it possible to sell British machines, on account of quotas and monetary difficulties. Why then should the British race on the European road circuits? The pessimists will immediately say that there is no reason. But I see two very good reasons why British manufacturers should race abroad next year. In the first place I am convinced that difficulties connected with sales—at the moment in a glorious tangle will very soon automatically clear themselves up; therefore it is essential that we as a nation should retain our prestige. My second reason is simply that the Continent is being made what I would cal 'road-race conscious'. Therefore, it automatically follows that the machines with the best road-race records are the ones that are going to sell. I have seen the enormous crowds which flock to these Continental races. Sometimes I am told that 200,000 people have paid to see the races; at other times it is a mere 150,000. The interest in these races is becoming colossal. Foreign firms, quick to realise the benefits that come of racing before such crowds, strive their utmost to beat the few British riders—all that are left of a starry firmament. And for two years they have been getting very near to doing it. But in nearly every case either the machine was too much for the rider or vice versa. But with the quality that is bred by racing the foreign menace is rapidly getting serious. Likewise, the skill of the riders is improving in an amazing fashion. Strange as it may seem, this year, out of all our British manufacturers, only four saw fit to reach out for the plums of the Continental road racing season. Those four— Excelsior, New Imperial, Norton and Velocette—deserve every bit of praise that can be showered upon them for upholding British prestige in the face of most adverse

circumstances. Large sums of money had to be spent with scant chance of an immediate return. These firms went out and did their bit for Britain, unsubsidised and unassisted; and their riders were able to show that they are still supreme. Their just reward will come, and I am positive that it will not be long in doing so. Now let us consider the men and the machines that this year have done so much to keep the Union Jack flying, and records of the National Anthem playing overtime.





First the Norton men. Here we have a team of brilliant riders with superb machines who set out to win 10 Continental races this year and—amazing as it may seem—were the victors in nine. The riders? Why, Jimmie Guthrie, Freddy Frith and 'Crasher' White. And the man behind them? Joe Craig, who sees that the machines accomplish what is required of them. It is this little team which sets out for foreign parts and with only a few days of practising finds the gear ratios and jets suitable to the course of the moment no easy matter this with a machine designed in a sense for the Isle of Man course. Continental circuits have an awkward habit of being quite unlike the Island. In Sweden and Holland the triangular circuits are virtually dead flat with long straights and few corners. In Germany and Switzerland the reverse is the case—there are practically no straights, and there are many quite steep gradients. All these details have to he mastered in the short space of time available. Guthrie, riding the big Norton, has had to face the most serious rivalry this year. Both the BMW and the DKW are terrifically fast, but it is doubtful if either machine can corner at really high speeds in the manner of the Norton. The BMW is slowly but surely attaining what I would choose to term 'Norton reliability'. This 'fabrik' and their riders deserve a big hand for their dogged determination. Compared with many of the British riders the BMW men are newcomers, and in view of this their riding has been brilliant. On the other hand, the racing DKW goes faster than the wind, but for the present it seems to tail off on the last few laps of each race. Even the little 250 DKW has a tendency in this direction. With regard to the two younger Norton men, Freddy Frith and 'Crasher' White, I have little to say. They have both performed brilliantly this year. The former has specialised on the 350, while the latter has on one or two occasions had to play second string to Jimmy G. In the 350cc class this year England has had no real challengers. In fact, the only real struggle occurs between British machines. Somehow it rather reminds me of a couple of cats fighting in a garden, and, when missiles have been thrown at them, carrying on with their fight in the next garden. Only in this case Norton and Velocettes fight in the Isle of Man and then carry on with their private battle in the Continental races. Mind you, it is not really a battle. It is hardly even rivalry, it is so friendly. Velocettes have tried very hard this year to break up the Norton 'monopoly' of the Continental races. With Stanley Woods, EA Mellors, and that grand humorist ER Thomas, they have seriously challenged the Norton camp. But the luck of the game has not come their way in several of the races. This year Mellors has done best for them with wins in the Belgian and French Grands Prix as well as a place in the Swedish. Unexpected troubles have prevented both Woods and Thomas being seen in their true light. One private entry came into the limelight this year on a Velocette, and that was HE Newman, who took third place from Thomas in the 350cc class of the Dutch TT. The Excelsior people have performed with outstanding success with models that are, comparatively speaking, barely out of the teething stage. Their 350s have not yet quite got the speed of winning machines. However, HG Tyrell Smith has nearly always been among the first six or seven to finish in the 350cc class; in the 350cc Swedish Grand Prix he finished fourth. In the 250cc class both Tyrell Smith and Charlie Manders have done really well; Tyrell actually beat the DKWs and the fleet 0 Tenni (Guzzi) in Germany and came home the winner of the FICM Grand Prix. True, the Guzzi and the DKWs could not maintain the sizzling pace they set in the early stages of the race—but then that is the luck of racing. While the New Imperial racing stable has had things more or less its own way at home, this has not been quite the case on the Continent. In the first place they have not seriously tried their hand at the racing game abroad this year. 'Ginger' Wood and the Hollander, Timmer, have been rather in the nature of lone hands. In the first race this year, the Swiss Grand Prix, Wood finished sixth to Tenni (Guzzi). Timmer came home fourth in the Dutch TT. The best New Imperial show I saw on the Continent this year was put up by 'Ginger' Wood in the 250cc class of the Swedish Grand Prix. He finished second to Winkler (DKW), and I feel certain that if the race had been another two laps longer our 'Ginger' would have pipped the grand little German rider. It is a long time since I have seen the DKW so hard pressed. After seeing the phenomenal acceleration and speed of the DKWs one somehow begins to think that we have nothing with which to dispute their leadership of the 250cc races. Then the New Imperial comes along, and it is very nearly a different story. I sincerely hope it will be next year. So far I have confined my remarks to factory riders. But I must emphasise that the British 'Circus' on the Continent is never complete without those heroes, the private entrants. Men like Eric Fernihough, Fergus Anderson, Pope, Leach, and many others stand little chance in these days of subsidised racing, but in spite of this they go abroad and do battle against terrific odds. I admire them intensely, and I am sure the Continental people like them all the more for their sportsmanship in tackling the almost impossible. What of 1937? Well, this year has shown that we are still supreme in both the 500 and 350 classes, although our leadership in the former has undoubtedly been challenged. It is not quite the same story in the 250 class—in fact, the reverse. But I believe that if we see the Excelsior and New Imperial men out again next year the tale will be different. In conclusion I would like to express my sincerest appreciation of those

British manufacturers, with their riders and the private entrants, who have put Great Britain where it is by their fine efforts and sportsmanship. Theirs has been a grand racing season this year. May they have even greater success during 1937." **Ambleside** 



"RR Snelling (346cc Royal Enfield) making a fine climb of Hill 4 during the MCC Team Trial."

"WHEN COMPETITORS, AS THEY hand in numbers at the finish, are heard saying 'Thank you!' and others remark that they wish there were more of this type of event—well, there was only one conclusion to be drawn, and that was that the trial in question, the MCC Team Trial, had proved a huge success. For the second year running the award for the best performance in the trial, The Motor Cycle Trophy, was won by the Sunbeam MCC. Considering the difficulties that had cropped up over the event between the MCC and the ACU, and the consequent postponement of the trial, the entry must be looked upon as extremely satisfactory. For this, the 29th annual championship of the clubs, there were 10 clubs, each with its team of six solos. Once again the Army authorities had kindly allowed the use of War Department ground. For last Saturday's team event the area for which permission was granted was Bagshot Heath, better known in years gone

by as the home of the Camberley Scrambles. It is a certainty that no land could be more suitable for a solos-only trial, since it abounds in hills and tracks and some of the hills have a gradient as steep as 1 in 3. Since the area in question is small, the trial was of the short but snappy variety. Two laps, each with eight observed hills, had to be covered [and it proved to be] one of the most enjoyable trials of the whole year. On the results being worked out it was found that the Sunbeam Club had repeated its last year's success with a loss of only 35 marks. Carshalton being second with a loss of 45. In view of the fact that no one had managed Hill 4 on the first lap the stewards decided to award souvenirs to all competitors who finished with only one hill failure; even so, only 11 competitors, it was found, came within this category, so stiff had the course proved. PROVISIONAL RESULTS. The Motor Cycle Challenge Cup (for best performance)— Sunbeam MCC: L Heath (497cc Ariel), EJ Heath (497cc Ariel), NJ Wolsey (497cc Ariel), J White (497cc Ariel), AJ Grover (497cc Ariel), R Davis (249cc Triumph), 35 marks lost. Runners-up — Carshalton MCC: GE Rowley (495cc Matchless), M Riley (348cc BSA), JJ St John (348cc BSA), RH Snelling (346cc Royal Enfield), GE Eighteen (248cc Royal Enfield), AA Smith (493cc Calthorpe), 45 marks lost. Third—Whitley &DMC: HC Wake (347cc Sunbeam), RG May, AJ Whistler, EG Wilmot (248cc AJS), RJH Gillingham (348cc Norton), AJ Gaymer (249cc Triumph), 67 marks lost. Other teams to finish complete: Coventry and Warwickshire MC and Streatham &DMCC, tied with 78 marks lost; Motor Cycling Club, 91; Birmingham MCC, 134; Stamford Bridge Speedway, 149. Souvenir Awards (for completing course with loss of only five marks; special awards for members of teams placed first, second and third): HC Wake (347cc Sunbeam), M Riley (348cc BSA), RH Snelling (346cc Royal Enfield), GE Eighteen' (248cc Royal Enfield), EJ Ford (493cc Triumph), L Heath (497cc Ariel), EJ Heath (497cc Ariel), NJ Wolsey (497cc Ariel), J White (497cc Ariel), R Davis (249cc Triumph), D Reeves (249cc Triumph).



"The winning Sunbeam MCC team. L-R: L Heath (497cc Ariel), EJ Heath (497cc Ariel), club secretary FW Pinhard, NJ Wolsey (497cc Ariel), J White (497cc Ariel), AJ Grover (497cc Ariel) and R Davis (249cc Triumph)."

"LAST SATURDAY THE South-Eastern Centre won the ACU Inter-Centre Challenge Trophy. It was a fine victory for a team made up both of acknowledged expert trade riders and of more ordinary motor cyclists, and it got home with three marks advantage over the much-fancied Midland Centre team. Yorkshire and Cheshire tied for the third position. This year the scene of the trial was in North Derbyshire; the event centred on Baslow and covered. much the same ground as was used two years ago. The Northern riders were quite cheerful about the venue and were still more bucked by the bright sunshine and the high wind of Saturday-morning. 'This will mean next to no mud and plenty of hard rock,' they thought, 'and those Midland and Southern chaps don't like rocks; this will be our day!' But it did not work out quite in that fashion."



"EJ Heath (497cc Ariel), South-Eastern, flicks open the throttle too gaily on Callow Bank—and lifts the front wheel of his machine."

"WITHOUT TOUT. Solicitors who use 'touts' to get in touch with road accident victims will have their activities restricted by Law Society regulations which have just come into force."

"WITH ITS LATEST PLANT in operation, Low Temperature Carbonisation, Ltd can produce 12,000,000 gallons of petrol and oil a year—about 1% of the national requirements."

"NO DOMESTIC ACHIEVEMENT would win greater gratitude or bring greater relief to the community than the freeing of our roads from those who so far abuse their convenience as to neglect the rights and weaknesses of others who have to use them.' Mr Hore-Belisha."

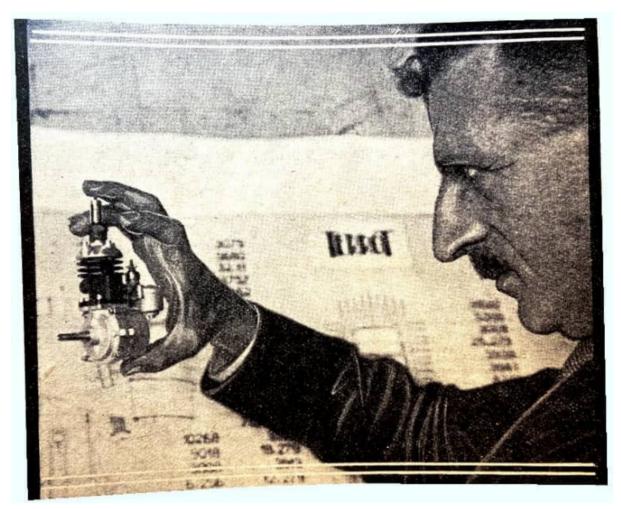


"In the Scott Trial: Half off his machine, H Watson (Royal Enfield) tarries at the notorious Cat Crags to exchange pleasantries with a few friends."

"IN A RECENT ISSUE OF The Motor Cycle Torrens described his experiences with a handlebar windscreen, and as I have used one for a period of two years I can endorse all he said in its favour. In addition to the screen, however, I fitted legshields, supplied by the makers of my machine. The screen I used also had an apron, and this was allowed to overlap the front of the legshields by about nine inches, and was secured by means of a couple of elastic bands. The higher the speed the closer the joint, and thus the windscreen and the legshields formed a complete guard, without affecting the steering in any way. The top of the windscreen is just below eye-level, but owing to the angle at which it is fixed the wind and rain are deflected over the rider's head. A few years ago I should have been inclined to ridicule such an arrangement, but the advantages are so numerous that I will always have my motor cycles equipped in this way. It is unnecessary to wear goggles under any conditions, and to anyone like myself who usually wears glasses, this is a great advantage, especially at night when it is raining. One's vision is perfect, because, of course, one looks ever the screen, and not through it. Waders are never necessary and even after the longest run a rider arrives at his destination free from dust and grime. The maximum speed (solo) of my machine is reduced by 7mph, but this is of no consequence, because my maximum comfortable

cruising speed is increased.

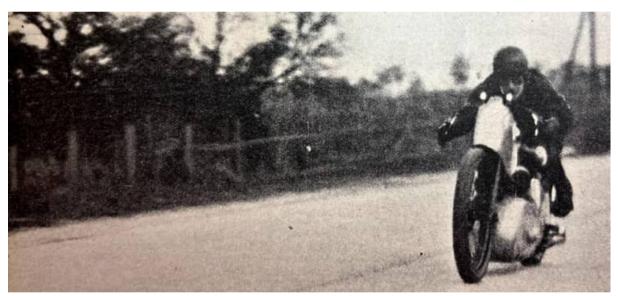
G Bowker, Manchester."



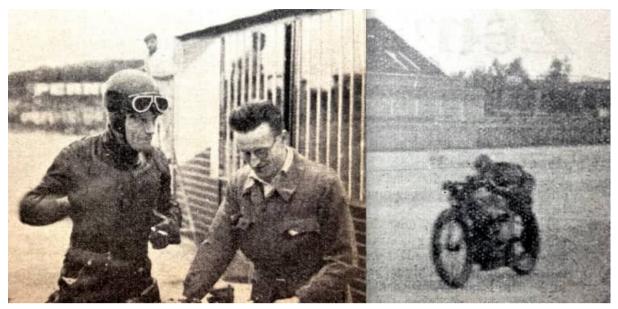
"This model aeroplane engine produced by Terrot, the well-known French motor cycle manufacturers, is a two-stroke of only 5cc. Ignition is by flywheel magneto, and the sparking plug is almost as tall as the cylinder."

"A FEW YEARS AGO autumn was regarded as the best time for record-breaking attempts. Intense excitement would prevail as day by day news would come through of fresh records being broken. Of recent years, however, the attempts have become fewer and fewer. There are over 160 records for motor cycles, side-cars and three-wheelers that have been standing for five years or more—indeed, some were last broken 10 years ago! But now, in 1936, interest is being awakened. During the past three weeks many important records have been broken and moreover, British riders and machines are once again to the fore. Last week, at Gyon, near Budapest, Hungary, Eric Fernihough added to his already big list of records by covering a mile from a standing start at 174.20kph, or 108.24mph. This is additional to his standing-start kilometre record of 98.91mph achieved recently on the Frankfurt-Darmstadt autobahn. The new record was achieved on Fernihough's supercharged and partly streamlined 996cc Brough Superior. The previous record was made by E Henne (736cc BMW) at Ingolstadt in September,

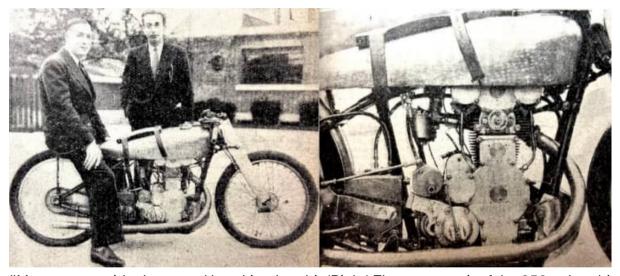
1930. Then at Montlhéry the French rider, Monneret, recently struck a shrewd blow at four 350cc class records on a special Jonghi. The hour record in this class was previously held by, A Denly (AJS) since 1930 at 104.52mph. Monneret's new records were as follows: 50 miles, 105.13mph (previous record 104.20mph); 100 miles, 105.69mph (104.52mph); 1 hour, 105.70mph (104.53mph). The successful Jonghi has a 350cc (71x88mm) engine built in unit with a four-speed gear. Each valve has its own separate over-head camshaft, driven by a chain of gears, while the cylinder head is of aluminium-bronze. A special feature is an external device which enables the valve timing to be set without disturbing the crank case. France already was the holder of the hour record in the 250cc solo class and the 350cc sidecar class in addition to the 24 hours record, which was obtained with a 350cc side-valve Jonghi at 72.57mph. But the new records were not allowed to stand for long, for they were broken again last Saturday by Jimmy Guthrie with a 349cc Norton—one of the 1936 TT machines which had been adapted for the oval circuit at Montlhery. A 5½ gal fuel tank was fitted and the compression ratio had been increased to suit the alcohol fuel used. The new records are as follows: 50 miles, 107.67mph; 100 miles, 107.45; 1 hour, 107.43."



"Eric Fernihough, on his partially-streamlined Brough Superior-JAP, snapped at Gyon, Hungary."



"Jimmy Guthrie looks pensive. Has the record been broken? This, if appearances are anything to go by, was the question uppermost in his mind as he took a well-earned cigarette. (Right) Guthrie during the course of his record-breaking ride."



"Monneret astride the record breaking Jonghi. (Right) The power unit of the 350cc Jonghi is distinctly unorthodox. Each valve has its own overhead camshaft, while the valve timing can be set by means of an external device (shown immediately below the camshaft casing)."

"THE FIRST CANADIAN motor cycle road race, run by the Quinte MCC, was held through the streets of Belleville, Ontario. The course, which was 1.8 miles long, was roughly rectangular in shape and the race was over 120 laps, making a total distance of over 200 miles. There were 34 entrants, 26 of whom were mounted on British machines. It is estimated that over 20,000 spectators turned out to watch the event. Starting in relays of four, the field got away at 1.30pm. George Pepper (Norton), who started in the second line, gradually worked his way through the field, and on the third lap he took the lead, which he held to the end. At the end of the fourth lap Pepper lost the mudguard pad

from his machine but he continued, riding half on the saddle and half on the bare mudguard. Half -way through the race Pepper lapped the entire field three times. At this point C Carroll was second and Sparks third, but later Carroll dropped out and T Miller (Norton) ousted Sparks from second place, with B Tancrede (Harley-Davidson) fourth. Then Tancrede [Babe Tancrede, let it be noted, was the 1935 US motor cycling champion—the Canadian 200-miler attracted the cream of riders from south of the border.] passed Sparks and for many laps scrapped hard with Miller for second place, eventually passing him near the finish. After the first six men had finished the other runners were flagged in. Pepper by his win becomes the first Canadian road-racing champion. RESULT: 1, GT Pepper (Norton), 3hr 51min 184/sec: 1, Babe Tancrede (Harley-Davidson); 3, Tony Miller (Norton); 4, Mat Sales (BSA); 5, J Ferguson (Rudge); 6, O Pazzi (Indian)."



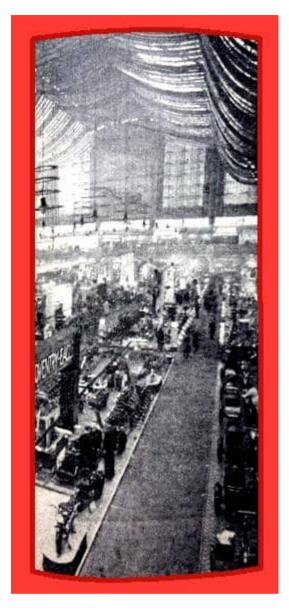
Following his championship winning ride George Pepper headed for Blighty, rode a Norton in the 1937 Senior TT (DNF) captained the Newcastle Diamonds speedway team in 1938, joined the RAF in 1939, flew nightfighters and died in a test-flight accident in 1942, two weeks after being awarded the DFC.

"THE 21ST MOTOR CYCLE and Cycle Show, and the last one of the series to be held in Olympia, was officially opened at 12 o'clock on Monday by Lord Nuffield. In introducing Lord Nuffield, Mr Oubridge, President of the Manufacturers' Union, referred to the growing prosperity of the motor cycle and allied industries, and to the fact that we have increased our exports of motor cycles from some 17,000 to 19,000 machines in the past year. 'How much greater success might we have had,' he said, 'had the Government encouraged exports as was done in Germany where (he believed) manufacturers had a

subsidy of about £10 for every motor cycle exported.' Lord Nuffield reviewed the development of the two-wheeler and said that he himself exhibited two motor cycles at the Show of 1903. To-day, he said, Britain owed much of her prestige abroad to the superlative workmanship and the quality of British motor cycles and to their performances on road and race track, not the least important of these successes being the winning of the International Trial this year. Concerning the growing use of road vehicles, Lord Nuffield said that he was convinced that the best drivers were always those who had made a beginning on two wheels. Before thanking Lord Nuffield, Sir Harold Bowden read a message of good will from the Minister of Transport, Mr Hore-Belisha, who said that he particularly appreciated the continued excellence of relationship between his department and the Manufacturers' Union in further-ing the interests of road safety."

## The Spotlight Falls-

On These Outstanding Exhibits at Olympia: Odds and Ends of Interest at the Show



"A MOTOR-ASSISTED bicycle from sixteen guineas, fully fledged motor cycles from £2I 10s to £140: there are motor cycles at this week's Olympia Show to suit all pockets and all needs. No matter whether the prospective purchaser is interested in a runabout, a motor cycle for utility riding, a means of seeing the countryside inexpensively and without any effort on his or her part, or a machine that will provide the key to the greatest sport of all, competitive motor cycling, there is a suitable mount at Olympia. The keynote of the exhibition is sound, sane design. A search of the Grand Hall from one end to another will reveal nothing freakish; all the motor cycles are of tried, proved design, with a greater degree of inbred reliability than ever before."

"WHAT THE SHOW REVEALS: A standard of excellence in design and manufacture unequalled the world over; motor cycles to suit all types of rider and all pockets, from sixteen-guinea motorised bicycles to luxury big-twins and 1,000cc four-cylinders; several completely new ranges of motor cycles; old favourites with important improvements incorporated to ensure still greater reliability and 'ride-ability';

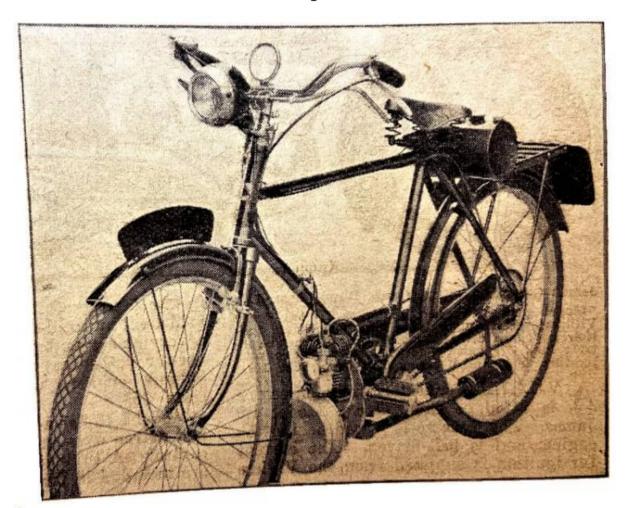
widespread tendency to enclose all moving parts; almost universal enclosure of valves and valve gear; new side-valve engines with the valve springs remote from the valve ports to ensure prolonged service; big effort to make machines look really smart without being flashy; standardisation of automatic battery charging; advent of automatic ignition control; widespread adoption of rubber handlebar mountings designed to insulate riders' arms from road shock and vibration; many machines with small-section front tyres and large rear ones with the object of ensuring good steering and cornering allied with a high degree of comfort; four-speed gear boxes with foot control almost universal; several new big-twins designed to appeal to all who enjoy effortless power, either solo or with sidecar; employment on many machines of absorption-type silencers developed to ensure a high degree of silence without serious power loss; increased number of quickly-detachable rear wheels and prop stands; new selfcompensating pistons, designed to eliminate piston slap, adopted in several engines of large cylinder bore; saloon-type sidecars growing in popularity; advances in design to delight the hearts of all experienced riders, and machines to tug at the purse strings of thousands who have yet to taste of the delights of the powered two-wheeler—that modern magic carpet."

"AN EXCEPTIONALLY BUSINESSLIKE lightweight motor cycle is a feature of the Carlton stand. This machine has a very complete specification, which even includes legshields. The power unit is the popular 125cc Villiers engine-gear unit, and it is housed in a straightforward frame that provides an unusually low riding position. The fuel tank, with a black and gold finish, is made of welded steel. Other features are Villiers flywheel-magneto lighting, a central spring-up stand, and 4in diameter brakes. This sturdy little machine, with its almost de luxe equipment, sells for a modest £21 10s."



"A lightweight two-stroke—the 125cc Villiers-engined Carlton."

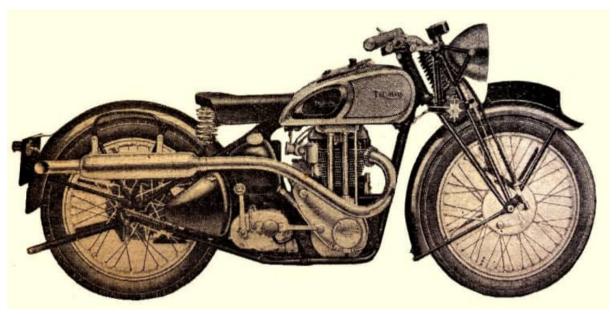
"FOR THE FIRST TIME since its introduction in 1934 the Cyc-Auto can be examined at Olympia. Four types of this motor-assisted bicycle are shown, two with electric lighting and two without. The basis of the machine is a suitably strengthened cycle frame, and the 98cc engine is mounted transversely below the front down tube. The engine unit is entirely self-contained, and the drive is transmitted through a worm gear to a chain driving the rear wheel. Pedalling gear is fitted and is used to start the engine. Should the engine fail, the machine can be used as an ordinary cycle. A flywheel magneto provides the current in the case of the models fitted with electric lighting. The units are shown fitted in frames suitable for both ladies and gentlemen."



"Cycling without effort: the Cyc-Auto, while in essence a bicycle, neatly incorporates a 98cc two-stroke engine."

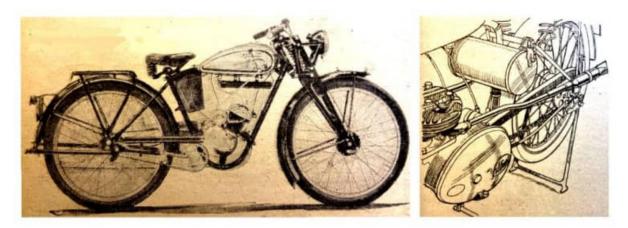
"ALTHOUGH THEY HAVE BEEN in production for a comparatively short time Triumph Tiger models have already earned for themselves widespread popularity. For next year they have to a certain extent been redesigned. The valve gear is fully enclosed and positively lubricated, and care has been taken to avoid oil leakage at all points. The valve clearance adjustment is at the lower end of the push-rods, telescopic push-rod enclosing tubes giving access to this point. Quieter and smoother running should result from the modifications that have been made, and certainly, externally, the power units

are much cleaner than before. A new gear box has constant-mesh gears, while wider gear wheels are used. Also, a new form of enclosed foot-change has been designed. The clutch adjustment is enclosed within the box, but is readily accessible through a cap which closes what is also the oil-filling orifice. Rubber-mounted handlebars, a new frame, an improved tank with a handsome silver-and blue finish are other items in machines which really form a dazzling display."



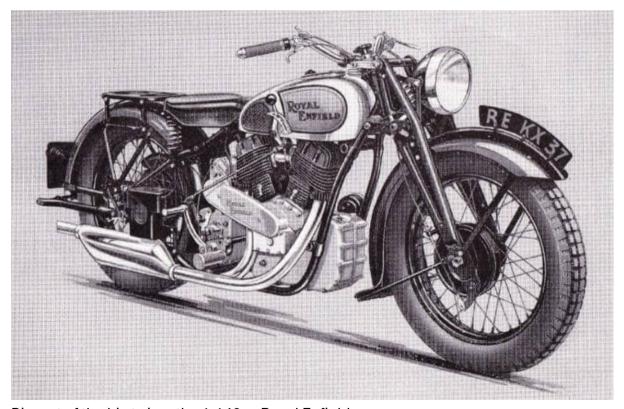
"One of the most handsome machines in the Show—the 500cc Tiger 90 Triumph."

"THREE LIGHTWEIGHTS—ONE a Continental velomoteur—and a sporting ohv 250cc model are the attractions on the Prior stand. The velomoteur is a type that is very popular in Germany. It has a 98cc Sachs two-stroke engine with a neat gear-driven flywheel magneto. A tubular frame is used, but the forks are of pressed steel. It has a two-speed gear and the final drive is by chain. Pedalling gear is fitted, and the machine has internal expanding brakes front and rear. Of the two remaining lightweights, one has a Sachs engine and the other the 125cc Villiers engine-gear unit. This interesting sports machine from Germany is worthy of close inspection, for although many British components are used, the style is Continental. The 250cc JAP engine has coil ignition, but current is supplied by a Bosch dynamo."

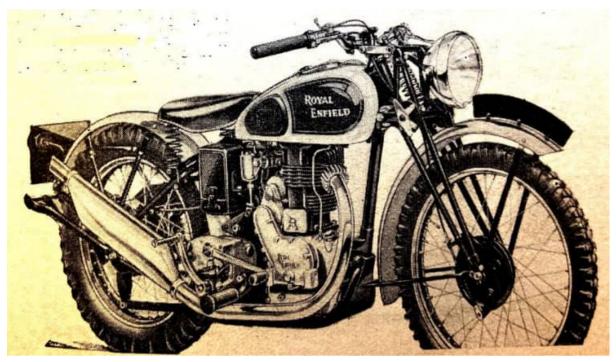


"A Sachs engine unit is fitted to this 98cc German-made Prior, which is in many ways typical of the Continental velomoteur. (Right) An unusual feature of the 125cc Prior-Villiers is that the twin exhaust pipes run straight back from the exhaust ports instead of curving round as is the usual British practice."

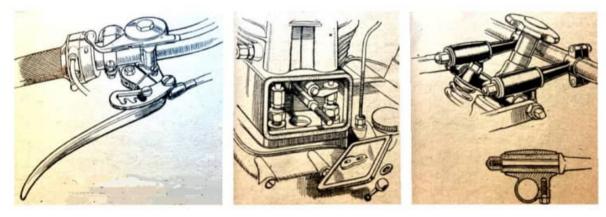
"TWINS OF OVER 1,000cc are not common in this country, but the newly designed Royal Enfield with its self-contained oil reservoir and four mechanical oil pumps is a remarkably handsome job. The big engine is neatly housed in a cradle frame. The machine has detachable and interchangeable wheels and an oil-bath chain case. Without interchangeable wheels and the de luxe specification it costs £70. One of these big twins fitted with an olive-green full two-seater sidecar forms a striking exhibit."



Biggest of the big twins: the 1,140cc Royal Enfield.



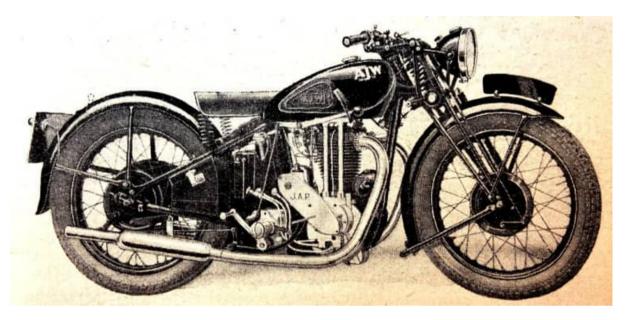
"As a result of the string of successes achieved by Royal Enfield machines in trials, great interest is being shown in this special Competition model."



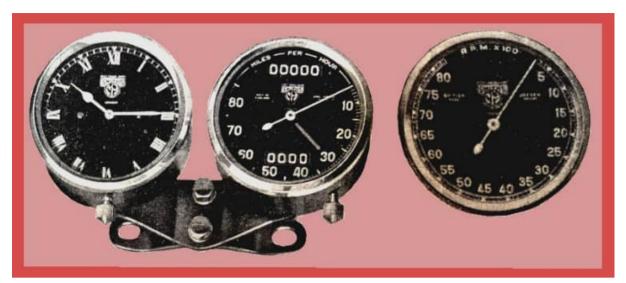
Royal Enfield innovations—L-R: "This simple but effective ratchet front brake will prove a boon to sidecarrists. On the ohv models the adjustment of the valve clearances is carried out at the foot of the push-rods. Rubber-mounted handlebars are standardised for 1937 on the twins and all the ohv models of 350cc and over.

"AS IN 1936, THE MAKERS of AJW motor cycles are concentrating on the two 'Fox' models, the Red Fox and the Flying Fox, for 1937. Both machines have been improved and modified in several respects. In each case a 490cc two-port JAP engine is fitted, and this now has oil fed direct to the bearings through a drilled crankshaft. The exhaust pipes are attached to the cylinder head by means of neat finned clips, which not only enhance the appearance, but also assist in cooling the exhaust ports. These modifications are common, to both models, and in addition the Red Fox has larger and more comfortable knee-grips. This model, which has a three-speed gear box with hand change, Lucas magneto, Miller 6-volt lighting equipment, and 3.25-19in tyres, costs £49

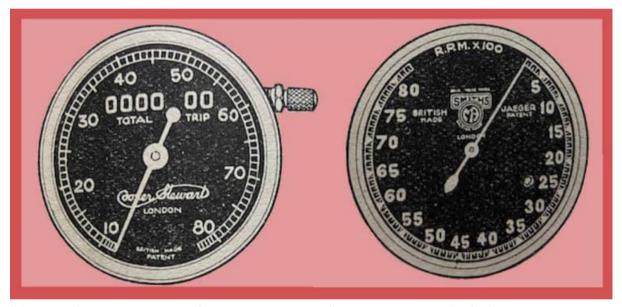
10s, fully equipped. The Flying Fox is a de luxe and sports edition of the Red Fox. The JAP engine is mounted in a very strong semi-cradle-type frame, which has a re designed gear box housing of box section. The gear box is a four-speed heavyweight Albion with positive-stop foot change. Solo ratios are 4.4, 5.8, 8 and 12.3 to 1. The four-plate clutch is operated by an improved thrust mechanism which is totally enclosed and constantly lubricated."



"IN THESE DAYS OF 30mph limits speedometers are no longer in the luxury accessory class, but have become an essential part of motor cycle equipment. S Smith and Sous have a full display of their various types of instrument. The chronometric speedometer that is so very popular is shown with a 5in dial calibrated to 100mph, as well as in the normal sizes, calibrated to 80 or 120mph. These instruments have a yellow line opposite the 30mph mark to enable this figure to be read more easily. Revolution counters to match the speedometers are shown. There are two patterns—the governor type and the chronometric. All these instruments can be obtained with brackets for handlebar or fork mounting, and the neat dual bracket for mounting two instruments is worth noting. On this stand is also a display of 8-day clocks with both handle-bar and bracket fixings."



Smiths 'fork-top mounting' looks more 1960s than 1930s. In this case the 80mph speedo (with odometer and trip meter) is matched with an eight-day clock, but Smiths could supply a rev counter (calibrated to a surprising 8,000rpm) to suit the trickle of sports models appearing with optional rev-counter drives.



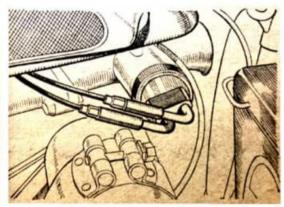
"Cooper-Stewart Model II trip speedometer. (Right) The popular Smith's Jaeger speedometer."

"AROUND OLYMPIA WITH IXION: 'I always feel a trifle embarrassed when coping with a Show which furnishes hardly any novelty. One has a sneaking feeling that the man in the street regards details as trivial, and suspects Press enthusiasm of being unduly great. So let us open the ball with a range which at a casual glance betrays nothing to hit the eye, and the models in which might even pass as 1936 jobs to a careless spectator—I mean the 1937 Triumphs. They have in actual fact been redesigned from stem to stern by one of the most brilliant engineers in the indutry, who took over the job of managing director during 1936. He has tried to retain the typical Triumph style while incorporating his own special notions of what's what. Externally and ostensibly the Tigers do not look

terribly different from other sports models of similar power and price. But get down to dots on any one of them, and you find a whole lot of rather intriguing features. For example, 'performance without pinking', ie, knots developed without resort to an objectionably high compression ratio. A valve gear inspired by the high ideal that no valve clearances should need to be adjusted in a normal season's work (fluidcushioned by oil under pressure). A lightning clutch adjustment, running in oil and therefore safeguarded against rust and grit. Front wheels in which the braking stresses are taken by all the spokes, instead of by only the spokes on one side of the wheel. Twenty-five pounds pared off the 350cc model (others in proportion), and a lot of it off the front end of the bus, which, of course, makes for better road-holding. This, I submit, far better deserves the proud title of Progress with a capital P than staging a stunt machine (say, a blown line-ahead 8-cyl), which has never run, even on the bench; gets headlines in all the dailies; and disappears unwept, unhonoured and unsung next season. A similar tale might he told of many of the 1937 machines which closely resemble their 1936 sisters, although not many of them have undergone quite such concentrated attention. Take the Velocettes, for instance, of which for some years past battalions of enthusiasts have averred that every detail is dead right; yet the staff, informed by racing, have added a little more speed, improved the adhesiveness, stiffened up this and that to stand extra revs, and so forth. Nothing to show, outside; for a good bus is even better than before. Or take the Ariel Square Four, for which the demand at no less than £90 a time has startled even its pro-ducers. Four of us fell to talking over lunch about a select list of super motor bikes of all time which deserve to rank as 'Great'; we disputed the claims of some



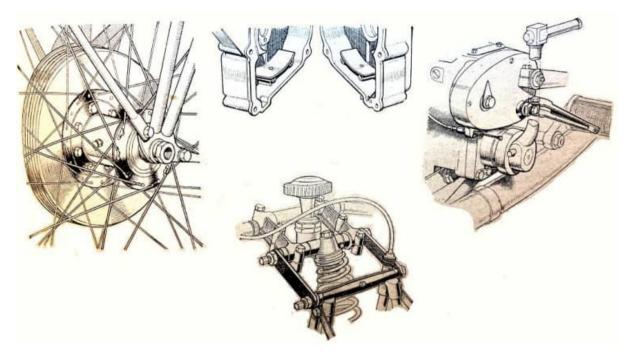




"A neat triangular type of tool box has been adopted on the latest BSAs. Note the slot in the milled 'hand wheel'. The new high-camshaft 250 JAP engine exhibited on the OK Supreme stand. "In order to eliminate sharp bends in the carburetter control cables the Tiger 90 has radiused tubular guides

famous machines, but the Squariel passed into Valhalla without a single dissentient voice. I cannot tacke all the exhibits at such length as the Triumph, so here goes for some briefer comments. The Coventry Eagle seems to have made a lot of friends in

1936, its spring frame being beloved where roads are vile; and the firm gets full marks for the extreme neatness of its spring-up stand. The little fellows like the Cyc-Auto, the Wolves, the two-stroke Excelsior and the other small-capacity machines are all gaining ground very fast indeed, and will gain it faster when and if the Government relieves them of tax and insurance. The 98cc and the 125cc machines seem to be outselling the 150s, and people like Villiers who make engines for this class are going to be very hard pressed to provide the output which 1937 will require. One or two new big twins were on view. The HRD Rapide sure has a well-stocked engine-room, as you'd expect when it weighs no more than 4051b, does over 100mph and, I gather, brews 45bhp. The sidecar which went with it housed a Philco radio set; but this option naturally just about doubles the cost of the sidecar. Then there is the new 1,140cc Enfield. I can remember when the original tough Enfield twin was the world's best seller to keen buyers who lived in agricultural areas devoid of any public transport, and this fine, powerful outfit should be in great demand. It is built for wear. There are four separate pumps in its oiling system, and the timing case is always half-full of oil; yet there is no litter of external pipes with the usual screwed joints. I marvel much that more cycle agents do not push the Enfield three-wheel 3-cwt carrier. It is the small retailer's dream. Won't do more than 30mph, so you can trust an errand boy with it. George Brough was as full of chat and notions as ever. It takes a real brain to improve the Brufsup. But for 1937 he has got the sweetestaction roll-on stand ever devised; a delightfully simple gadget for insuring carburetters never get out of balance (throttle levers coupled to a single spindle, operated by a single wire); and the most comfortable sidecar ever staged. On the Excelsior stand I especially admired the wee fellow—125cc; 120lb; 140mpg; and £21 10s. It has legshields, double silencers (important, this!) and three-speeds. The Manxman model reminded me of an incident at another stand, where a private owner berated the designer for adopting the dry-sump method of lubrication.



"Braking stresses are shared by all the spokes of the front wheel on the new Triumphs. A pocketed sump on the Manxman Excelsiors prevents the oil being churned up by the flywheels. The adjustment for the clutch on the Manxman Excelsiors is both simple and well protected. Double-locked fork spindles are new features of the Matchless range."

This owner, like the Levis people, prefers direct oiling—using cool, clean oil, and replenishing the continuous losses; he told the designer he would not buy their 1937 model with the dry sump. But the Manxman engineer sidesteps this owner's criticisms with his 'pocketed' sump. The oil which is in reserve drains into the pocket, where it escapes being churned up by the flywheels, and where the pump can cope with oil instead of with froth. The Matchless range has undergone considerable detail alteration, largely inspired by the very laudable ideal of producing mounts which an intelligent private owner can maintain without blood or tears. Take, for example, the extended clamp-bolt of the gear box adjustment, and the raising of the valve clearance adjustment on the ohv models, which, incidentally, is claimed to eliminate oil leakages. Their very sympathetic designer believes not merely in simplifying adjustment, but also in rendering it unnecessary wherever ponsible. He thinks his fork nuts will stay tight for ever and ever—not without justification. AJS machines are also modified. Henceforward the camshaft win be a race replica pure and simpler, and the push-rod machine is the trials job. The side-valve engines of this marque have undergone intensive development. There are grease nipples on the valve guides and on the magneto chain case—oil getting in the mag is a commoner cause of trouble than some users guess. The Rudge people are very proud this year and had the victorious Silver Vase trio of machines in the place of honour on their stand. 'Proved Performance Improved' is the 1937 slogan of this factory, and the models look as if they mean to live up to it. New Imperial 1937 models are ultra-modern, with unit gear boxes as standard, spring frames as options, separate oiling to engine and gear box, etc. They do not say so, but it always seems to me that on a large and heavy bus it should be possible to keep a separate gear box in alignment, but that on a light frame this aim can only be achieved by wasting weight. A unit gear box on a light machine must be right every time. The Levis machines look as hand-made as ever, and I note with interest that they guarantee both a 'maximum' and a 'cruising' speed. They adopt the aviation definition of 'cruising' speed, viz. the rate which the engine can stand indefinitely; and on their models it is very high much higher than home roads will permit. Comprehensive is the only possible adjective for the lovely models which graced the BSA stand, of which the M23 Empire Star is the queen. Nobody in the industry caters quite so lavishly for us as this factory—why, they even standardise three separate types of legshields to make sure of suiting all our fads! Low cost, high performance, exquisite workmanship: highly organised service and every conceivably useful gadget compose their policy. I confess to liking gadgets, especially two-way petrol taps, as I am woefully careless about my fuel level. This range could worthily represent Britain anywhere. The Norton stand always makes me feel a fool. It plumbs the depths of my ignorance. Externally, it is mainly distinguished from its rivals by the exhibition of silverware and the shields recording such victories as four successive Senior



L-R: "Show stand-points: An eagle-eye's view of the Coventry Eagle stand. (Right) Horses and horse-power at the Ariel stand. Norton's silverware (and motor cycle) display. The Rudge trio that won the Silver Vase in the International Trial."

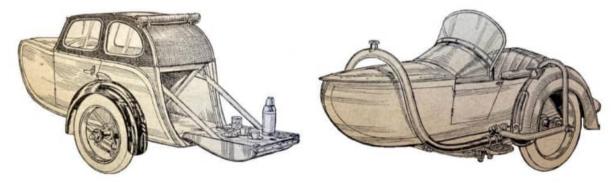
TTs and six successive Juniors. But when you give yourself on eyeful of Norton, and next an eyeful of some other 500cc or 350cc. camshaft, you can spot nothing to suggest that these machines are the despair of rival engineers; float in all manufacturing countries designers lie awake at night scheming how to beat Norton, and fail almost year after year to get near them, while other designers frankly eschew racing because they despair of equalling Norton knots and Norton read-holding. Externally, there is little new to chronicle about this marque, but when you see—or meet—them in-action during 1937 you will find that they are just a little better than ever in all the details which make for supreme speed and supreme safety. On the Francis-Barnett stand I thought the G41 Plover quite the beau ideal of a lightweight if you don't mind paying a trifle over bottom price to get such luxuries as 6-volt dynamo lighting. The Cruiser, with the flat-top Villiers engine, has been still further improved, and probably ranks as the easiest motor bicycle in the world to clean, and as the one which keeps you cleaner than any other. I spent

quite a while on the Watsonian stand—not that I am a chair merchant—but I was intrigued by the multitude of types which they make and sell. One model was eloquent of domestic grief—it was fitted to a he-man's machine and designed to take twins. I hold that if a woman is cruel enough to saddle her husband with twins, the least she can do is to sidecar one of them on her own bike. I'm afraid I am not so gallant and chivalrous as I should be. I always resent the type of sidecar which is built like the cockpit of an aeroplane, with a hinged lid. If a man works to earn money to buy a bus, and tackles ail the labour of driving, and the weather goes sour on him, I think his woman should share the cold and the wet, and beguile his labour with her prattle instead of retiring into a warm cockpit and leaving him to brave the elements in solitude. But they seem to sell a lot of these super-saloon sidecars nowadays. Did you notice that the 'clean' handlebars of two or three years ago are dead as doornails? When all the works were inside, a heavy toss often meant that the bus couldn't be ridden home; but with a clip-on control you can always put things back after a fall and proceed. I saw few items at the Show which are likely to perish for similar reasons. I gather from all accounts that the next Show (at Earl's Court, one presumes) is likely to produce a lot of new buses. Trade is good, and the firms feel justified in launching out a little. Well, it is pretty certain that they cannot do much to improve the standardised types."

THE SIX-DAY Olympia show attracted a record breaking 76,653 enthusiasts, including 31,611 on the Saturday. Not everyone could afford stand space so Pride & Clarke's Hammersmith showroom, right next to Olympia, showcased the AJW, Calthorpe, Cotton and Douglas line-ups; the Panthers were exhibited at George Clarke's South London depot; and the Scotts yowled at the company's London depot on Tottenham Court Road.

SHOW HIGHLIGHTS: "Two sizes of Square Four Ariel and a de luxe side-valve finished in olive green. ••• James models with a new finish—black and gold tanks with red-lined wheels. ••• Spring-frame New Imperials and real racing modals—all with unit construction. ••• Royal Enfield competition models as worn by the 'stars'. Also a redesigned big twin. ••• The gracefully arched Velocette stand with a KTS and MSS inclined upwards in the middle. Don't miss the automatic ignition device. ••• A Swallow Launch Aero Coupé sidecar finished in blue metallic sheene ••• The big range of Watsonian sidecars. In particular the red and black De Luxe Coupé ••• The two competition Tiger Triumphs and sectioned models of the new engines and gear box ••• A camshaft racing machine and the unusually neat 250cc high camshaft JAP engine on the OK stand ••• The three Rudge machines which won the 'International' Vase in Germany this year in their full war paint ••• Handsome BSA Empire Stars, and the special competition model. ••• Excelsiors in great variety, including an all-chromium 125cc model and the new 500cc Manxman with a bronze head. ••• All-enclosed transmission on several of the Sunbeams. ••• The Matchless big-twin which is planned for solo as well as sidecar work and looks as if it should be delightful for both. ••• Front

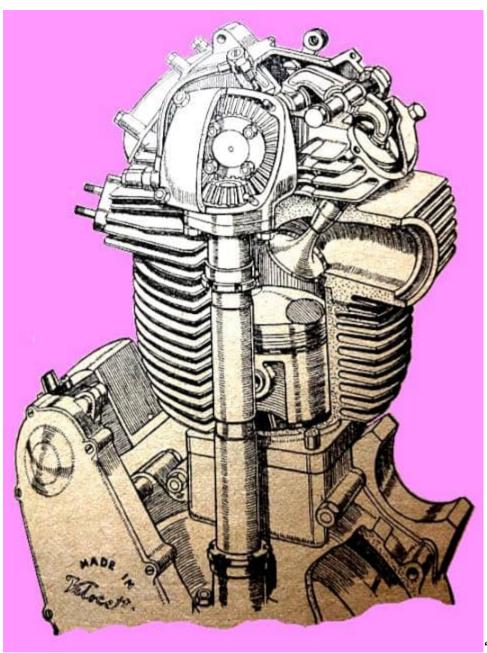
brake cable adjuster on top of the fork girders, with the control passing down the tube, on Matchless Clubman models. ••• Single cable control for the twin carburetters on the SS 100 Brough Superior. ••• 'Cleanable' and clean enclosure of all mechanical parts of the Francis-Barnett Cruiser. Note the improved guard over the rear chain and sprocket. ••• A competition-equipped Levis that will appeal to the trials rider. ••• Practical, short handlebars on the sports Sunbeams. ••• Ultra-simplicity of control in The unitconstruction Wolf. ••• Neat protectors fitted over the sparking plugs of the side-valve Morgans. ••• The new 1,000cc twin Vincent-HRD and the sidecar outfit fitted with a Philco radio set. ••• The 'big' little motor cycle on the Carlton stand—one of the lowestpriced machines in the Show. ••• The supercharged 494cc twin BMW which won the Swedish Gland Prix. ••• Overhead-valve engines in tubular frames on the Coventry Eagle stand. Also the neat and ingenious method of enclosing the rear stand spring on these machines. ••• German Steb sidecars with all-steel bodies, pivot front mounting and rear coil-spring suspension. ••• 'Motif' shaping of the top panels of one sports model Noxal sidecar, and the extremely smart steel-blue finish. ••• Cyc - Auto motorised bicycles with electric lighting, shown for the first time at Olympia. Total weight 871b! ••• The magnificent Hitler Trophy won by Jimmy Guthrie in the Grand Prix of Europe, among the vast army of silverware on the Norton stand ••• A Continental velomoteur fitted with a 98cc Sachs engine and pedalling gear on the Prior stand. Also a JAP- engined German 250."



"A picnic table is cleverly provided by the lid of the luggage locker on this attractive Noxall sunshine-roof saloon sidecar. (Right) Petrol is carried in the single-tube chassis fitted to the Brough Superior sports sidecar. Long, flat, semi-elliptic springs support the body."

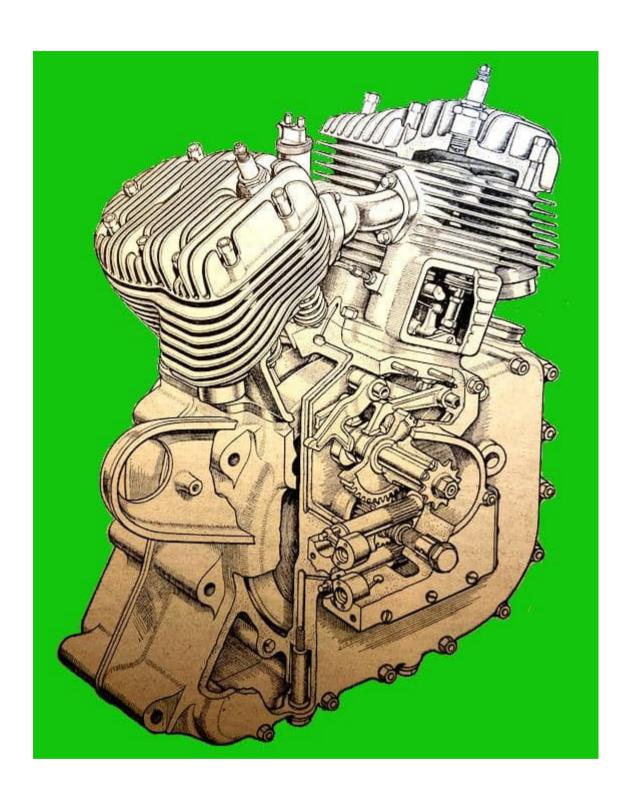
TECHNICAL EDITOR 'UBIQUE' took a close look at some of the best engines at Olympia: "There are lots of new engines—whole ranges of them—and very nice they are, too, but they are not freaks, and they follow the logical development of present-day singles and have been carried a few stages farther. I dare not suggest that they have now reached the limit of evolution, but one cannot help wondering when some other well-tried type of engine will be chosen as a basis for refinement and progress. Perhaps we are nearer to a radical change than we suspect. Actually, there is a redesigned 600cc Four—redesigned, that is, to line up with a larger model which appeared last year. There are

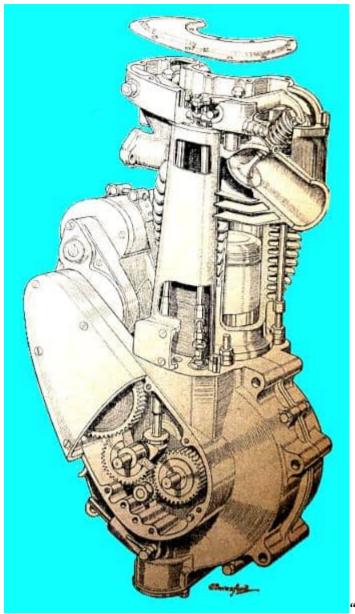
two brand new big-twins, and although a certain twin of interesting design has disappeared temporarily, it may be taken for granted that it will reappear in a new form in the near future. There is also a new high-camshaft engine with chain distribution gear and all-enclosed mechanism which will interest a lot of visitors. I am not writing this in a carping spirit, for I believe that the modern single-cylinder engine has now reached a pitch of perfection which is little short of miraculous, and I wish merely to remind manufacturers (not designers—they know it!) that there are other types which offer considerable scope for refinement and comfort. There are quite a lot of detail modifications to both overhead- and side-valve models which are interesting, and there has been a very marked effort to decrease piston clearances without the loss of performance. This I look upon as most important, for in the past there have been many 'hot-stuff' models on which the amount of piston slap was appalling at speeds below 30-35mph in top gear. If the clearances were reduced, the performance fell to a marked degree, and incipient seizure became common. This failing is, I hope and believe, a thing of the past. In one case (a side-valve) there has been a return to the one-piece cylinder and head. Although I am aware that not everyone will agree with me, I look upon this as a return to correct practice, more especially in ohv engines. Machining may be more difficult, but heat conductivity is greatly improved just where it is most needed. Someone will turn and rend me on the score of accessibility, but I shall not give in without a fight. Full marks, by the way, to automatic ignition control, the one real novelty. The device may or may not provide a perfect ignition timing curve, but I am prepared to wager that it is more accurate than the settings achieved by 99 out of 100 riders. Also, it removes one straw from the stack of haberdashery (forgive the metaphor) that spoils the engineering appearance of so many motor cycles. I am, and every motor cyclist should be, forever grateful to Mr Bowden for wire control, but surely it is time that some of the cables were rendered less obvious on production machines. Even Show models are apt to be untidy in this respect. As you see, I have rather wandered from the subject of engines, but there is not much more to be said except about individual details."



"A feature of the

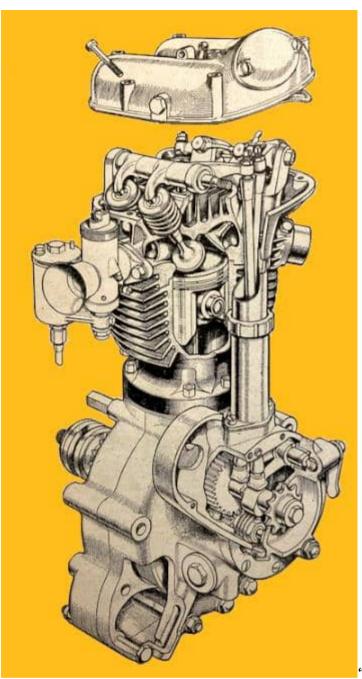
348cc ohc Velocette engine is that the cylinder head and the cam box are formed of a single light-alloy casting. Note also the inserted valve seats and the oil feed to the camshaft."





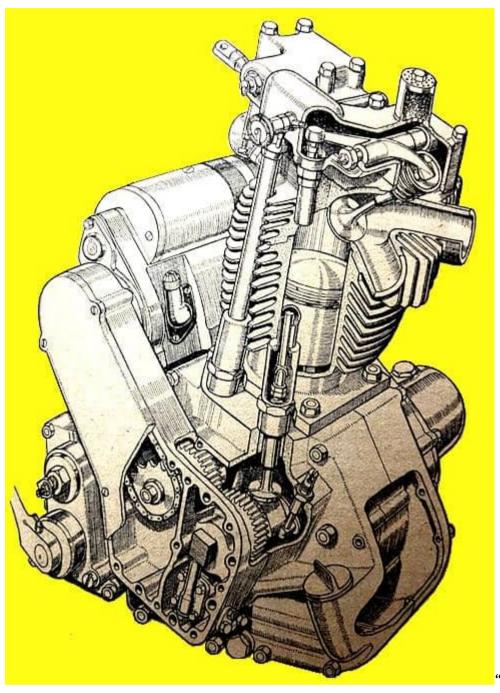
"An 'exploded' view of the power unit

of the 500cc Empire Star BSA. The single-port engine has totally enclosed valve gear and employs a new dry-sump lubrication system. Air-hardened cylinders are a feature of the BSA range."



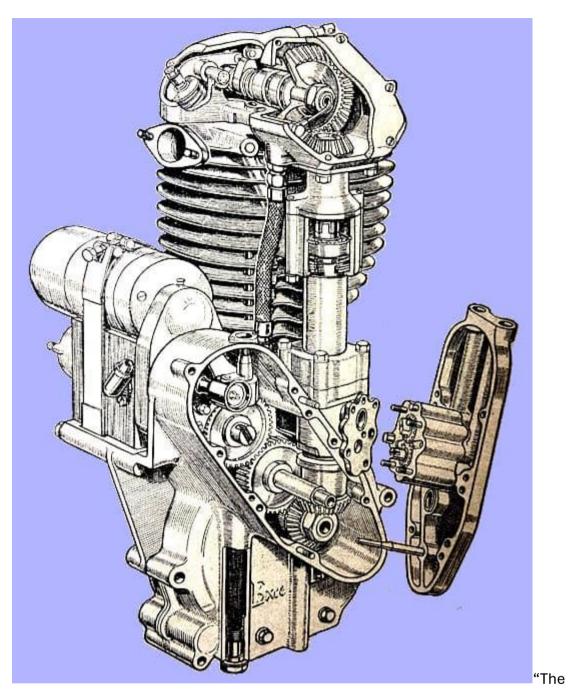
"On the latest Rudge Ulster engine

the four-valve mechanism is completely enclosed, while the rockers are pressure-fed from the main oil pump. Tappets have been eliminated, the push-rods now being socketed top and bottom directly to the rockers."

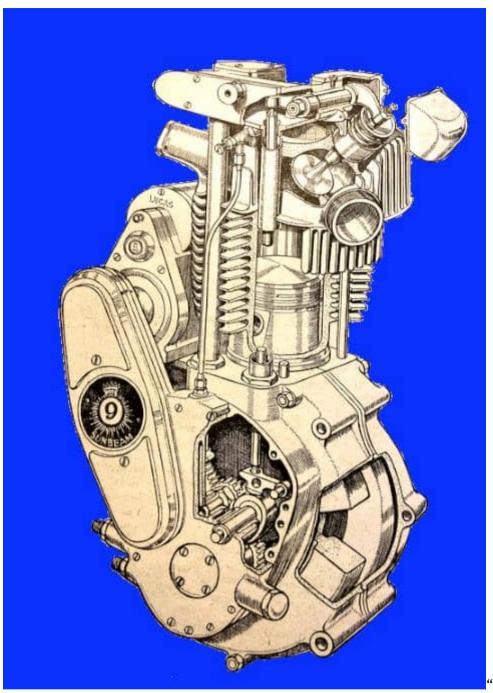


"A feature of the

1937 New Imperial engine-gear unit is that the four-speed gear box is partitioned off from the crank case. The two-port engine has fully enclosed valve gear, while the single plunger-type pump is now enclosed in the timing-gear cover."

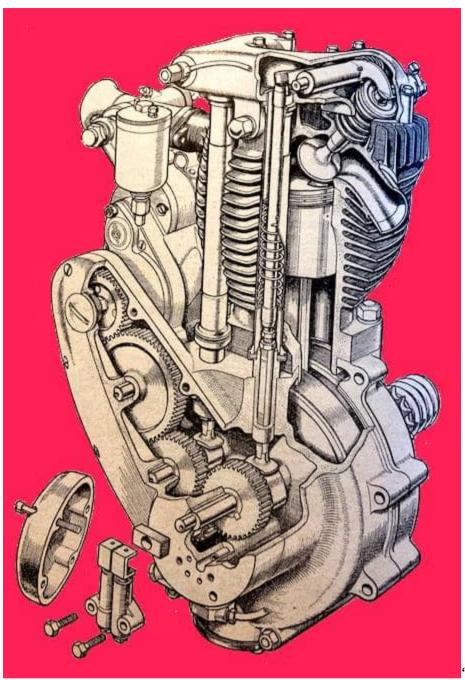


overhead camshaft of the Excelsior Manxman engine runs on ball and roller bearings, and two steady bearings are incorporated in the vertical shaft. Provision is made for driving a revolution counter off the magneto spindle."



"All Sunbeam

engines now have internal oil pumps and leads and new Sunbeam 'non-slap' pistons. This drawing of the Sunbeam Model 9 engine shows clearly the new method of valve spring enclosure with detachable covers."



"The redesigned ohv

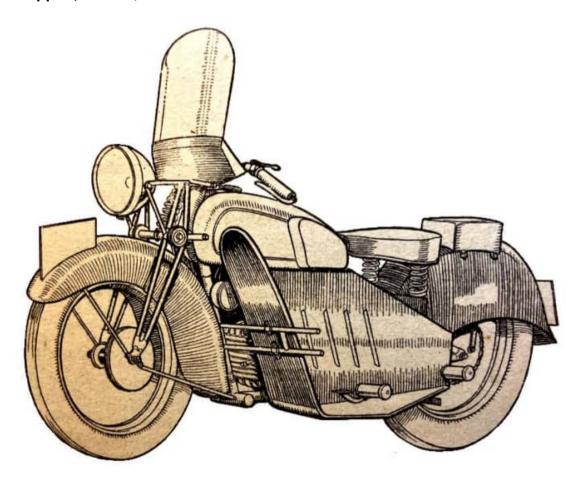
Triumph engine has the rocker gear fully enclosed in a one-piece aluminium casting. Twin plunger-type oil pumps are employed, and oil is by-passed direct to the rockers. Note the telescopic push-rod covers and the flat-sided tappet rods."

"NOW THAT THE MCC Team Trial has been held I hope the ACU and MCC will get together without waste of time. The trial is much too important and far too enjoyable for any troubles to be allowed to mar it in the future. Except for the War period and in 1905, when differences between the MCC and ACU (or ACC, as it then was) caused its cancellation, the event has been held continuously ever since 1904. At the present time it is one of the most enjoyable events on the whole calendar, and sport—inter-club team sport—at its best. The regulations should be drawn up and agreed upon NOW, and

the date of next year's event fixed at the Date Fixing Conference that takes place at Olympia this week and held inviolate."

"IN VIEW OF THE recent correspondence on the enclosure of motor cycles, I am forwarding a sketch of a model I am now constructing. Enclosure does not detract from the sporting appearance of a motor cycle. My experience has proved to me that 'Mr Citizen' prefers the cleaner lines of a machine of this nature and appreciates the protection which legshields, heavily valenced mudguards and windscreens afford in all weathers.

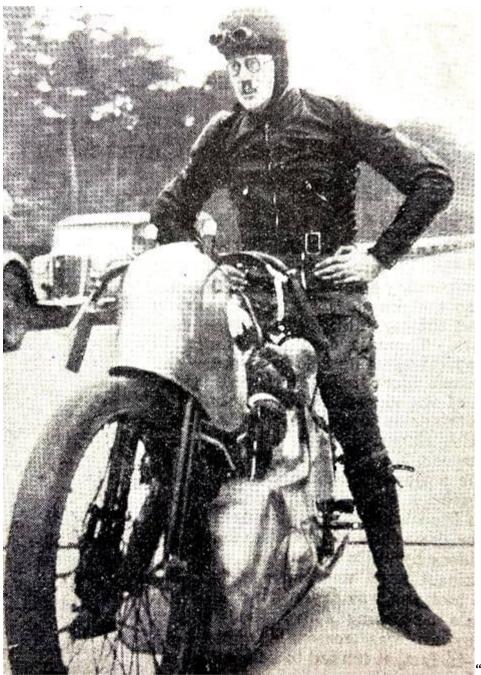
JA Chappell, London, SW17."



"An all-enclosed motor cycle which Mr Chappell is busy constructing."

"AFTER A FLYING VISIT to the Olympia Show, Eric Fernihough returned last week to Budapest (where he recently raised the standing mile record to 108.24mph). This record—as in the case of the standing kilometre record which Fernihough holds at 98.91mph—was obtained with the semi-streamlined supercharged 996cc Brough Superior-JAP. Owing to the difficulty of testing his machine properly before taking it on the Continent, Fernihough found that certain unexpected problems, which only became apparent at high speeds, prevented further record-breaking runs for the time being. However, in the intervening period he overcame those troubles, and last Saturday took his Brough Superior over to Gyon, Hungary. There, over the flying mile, he averaged a

mean speed of 163.82mph, thus beating by over a mile an hour Henne's speed of 162.7mph, which was made on the fully-streamlined 500cc BMW at Frankfurt. Fernihough then proceeded to attack the standing mile sidecar record, which he did successfully at 80.49mph."



"Eric Fernihough

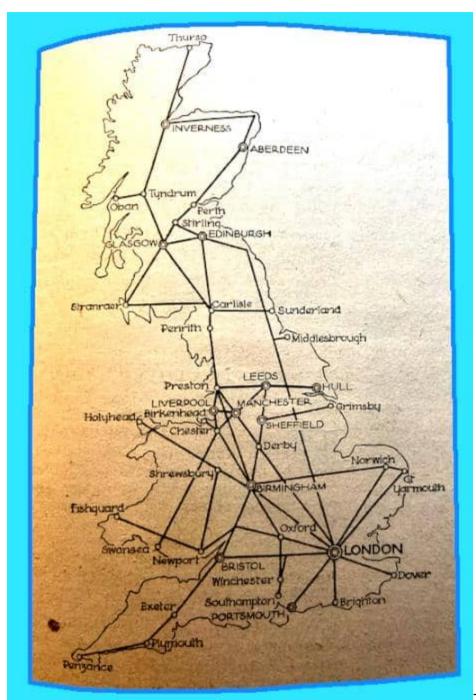
astride the partly streamlined and supercharged 996cc Brough Superior on which he covered the flying mile at 163.82mph."

"IT WILL COME AS A shock to many to learn that, assuming his record for the flying mile remained unbroken for 28 days, EC Fernihough stood to gain in actual bonus the sum of £25—just that and no more. No doubt, in view of his having covered over100 miles at speeds varying from 150-175mph he has ensured that he receives retaining fees from

various concerns for 1937. But what incentive is there for a man to make attempts when each trip to the Continent is certain to cost about £100 and the direct return for a world's record at over 160mph is merely £25? Were there numerous wealthy amateurs with .the knowledge, time and ability, this might not matter very much—the honour of such an achievement would be sufficient in itself. But with the majority of potential record breakers it is essential that there is an adequate return for their time and energy. They must live partly, if not entirely, by their record-breaking. It seems that the pendulum, in swinging from the days when a man automatically received about £8 for a gold medal in the London-Exeter run, has swung to the opposite and absurd extreme. It is not surprising that Britain shows up poorly in the world's record list."

"THE DAY WAS FINE and cooler than usual, the maximum shade temperature being about 87° Fahrenheit ...' So runs a letter which I received during Show week. Cool at 87F! My correspondent was writing of the eighth annual Endurance Trial organised by the Automobile Association of Bengal, held on October 22nd. The start was from the Government House, Calcutta, and the 300-mile route led to Ranchi, via Burdwa, Asanol and Hazaribagh. The first man left the start at 4.30am—half an hour before dawn. The flat plain of Bengal was left behind at Asanol and the route wandered through undulating country to the Bengal-Behar boundary, where the road climbed up to 1,000 feet above sea level. Later, in the foothills of Hazaribagh, 2,000 feet was reached, and here the schedule was reduced from 30mph to 20mph. Although the roads were for the most part excellent, stray cattle caused a great deal of trouble. JW Willis (499c Rudge sc) had a stroke of bad luck when his sidecar tyre punctured (owing to a cast bullock shoe) 10 miles from the finish. He carried on and reached the last check just as the wheel was about to disintegrate. Result: Dunlop Cup, HW Irwin (570cc Royal Enfield); bronze plaque, JW Willis (499cc Rudge sc); finishers AF Taylor (246cc AJS), DK Roy (493cc Triumph), PC Lenka (348cc BSA)."

"The new Trunk Roads Bill, which will probably become law before Christmas, makes the Ministry of Transport the highway authority for some 4,500 miles of roads of major importance. These roads constitute approximately 17% of the mileage of Class I roads in this country. The Ministry, in effect, will have a free hand to improve these trunk roads; and greater uniformity in widths, surfaces and lay-out of the roads in question is the aim. The map shows the routes concerned."



This map

represents the birth of the UK trunk road network.

"YEAR BY YEAR I HOPE some No 8 hat will invest motor cycles with some novel gadget which will compel the toughest and gummiest motor to start up, hot or cold, at the first kick, even when that kick is unskilled and the motor has got out of tune. But the novel gadget never comes along. We must not exaggerate the starting bother, which after all is normally trivial enough. But a stoutish fellow of 30 summers doesn't want to give more than one kick, especially when he is wearing his polar kit on a hot day. In all my years I have only owned about three machines which were genuine tickle-starters, hot or cold, in tune or out of tune. One was a Douglas fiat twin; another was a Matchless Silver

Arrow; the third was an Ariel Square Four. Looks almost as if we shall some day be driven to admit that nothing but a low-compression twin or four can be relied upon to tickle-start.—**Ixion** 

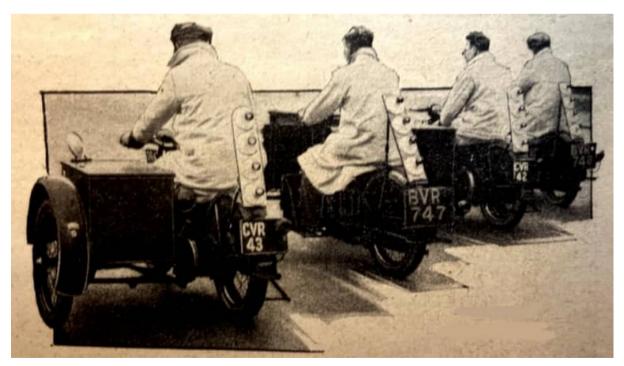
"THE VISITOR TO THE office did not know the Editor very well. That was obvious. As I passed by I heard the man in the competition coat say: 'You don't ride a motor cycle?' It was one of those questions people put when they are quite sure that the answer is 'No!' . I scuttled along to my office for fear of exploding in public. Little did the man in the competition coat realise he was speaking to one who that very cold and foggy morning had travelled to the office on two wheels—one who in spite of his lack of free time generally averages his 15,000 miles a year."

"SEVEN MILES OF main roads and 15 miles of residential roads in Newcastle-upon-Tyne are now provided with the latest GEC road lighting equipment."

"THE GERMAN MOTOR cycle champions for 1936 have been adjudged as follows: 250cc, Kluge (DKW); 350cc, Fleischmann (NSU); 500cc, HP Muller (DKW)."

"A NEWSPAPER CORRESPONDENT pleads for 'a coloured light at the front of each car so that the application of the brake would signal simultaneously to the front and to the rear the driver's intention."

"IS AMERICA DUE FOR a motor-scooter boom? Two new models have just been introduced, one known as the Moto-scoot, the other as the Motor Glide."



"These motor cycle and motor tricycle patrols, equipped with fog lamps and repairing tackle, are to stand by ready to lead East Didsbury, Manchester, buses in foggy weather."

"YOU MAY NOT KNOW that the outstanding activity of the AA in the very early days was warning its members of police traps. Even in my era I have seen in AA handbooks the advice to members that if a patrol does not salute them they should stop and ask the reason why! The RAC, I learn, has reintroduced the scheme in 1936. It is up in arms, and very rightly so, at the employment of so-called 'silent speed controls' in the County of Warwickshire. Plain-clothes police follow you in 30 limits and do not trouble to stop you if you are exceeding the limit, and the first you hear of it is when a week or 10 days later you receive notice of intended prosecution; by that time in all probability you have forgotten all the circumstances and have not a hope in making your defence. What the RAC is doing is this: it has taken two the areas in which this form of trap appears to be operated most frequently and has stationed an RAC guide at the entrance to each. The guide signals members to stop and when they do so, naively draws attention to the fact that the section of road which lies ahead is subject to a speed limit and that the road is a dangerous one; finally he explains that it is part of the duty of an RAC guide to see that members of the club comply with the law!!! The shriek marks at the end of the sentence are mine."

"ONCE AGAIN THE SOUTH and Midlands swept the board at the North Manchester MC's open cross-country race on Holcombe Moor, near Bury. And at the same time, Yorkshire continued its habit of beating Lancashire in that subsidiary 'Battle of the Roses' that has always been a feature of the Lancashire Grand National. The morning was enough to deter the stoutest, for the rain teemed dozen and the prospect on that high and soaking moorland was anything but good. Then a fierce wind blew the rain away and opened the clouds for a few bursts of sunshine as starting time drew near. That, at any rate, was good for the riders, even if the chill blast was uncomfortable for others. When the 50 riders roared off en masse across the moor, it soon became obvious that it was to be a ding-dong struggle. WA West, Vic Brittain and Jack Williams were quickly at the head of



L-R: "WA West (Ariel), tired, mid-spattered but—the winner! A competitor in the

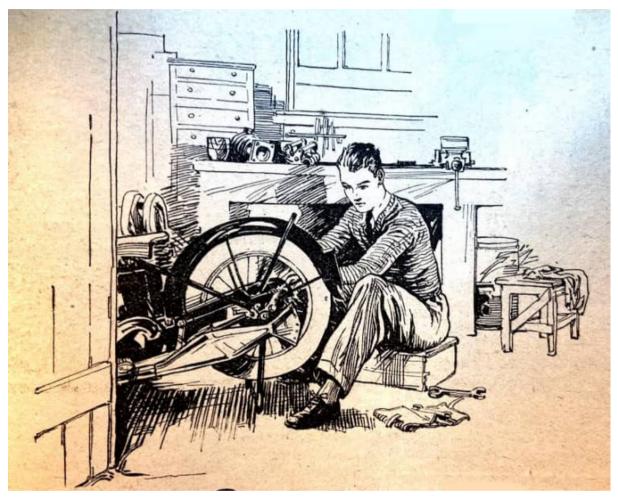
background makes unintentional obeisance to his machine, while HW Boswell (Triumph) looks none too happy either. EK Longston (Rudge) 'turns a corner in his career' round the course. Looking a little weary, a competitor tackles the Watersplash, using his legs to steady himself."

affairs, and West finished every one of the 10 laps in first place, although betweenwhiles both Brittain and Williams took the lead for short spells, first one and then the other. Northern hopes of victory in the South vs North contest were soon dashed (if ever they existed!) with such a formidable trio setting the pace, and it mattered little that the South soon lost two of its selected six and that all six Northern men kept going—the best three were the, only ones that counted. In the early laps, before some of the slower men had given up the struggle, the dense bunches of men and machines plunging into the dreaded Gully was a sight to thrill the calmest of spectators. And thousands of people flocked across the moor to see the fun. It seemed, too, that thousands helped the plunging and struggling competitors to sort themselves out. Flying mud covered all and sundry, and riders and machines rapidly became almost unrecognisable. This was a real Grand 'National! And 31 survived those 10 gruelling circuits, even though 28 of them never had a hope of catching that extraordinary trio who topped. the list."



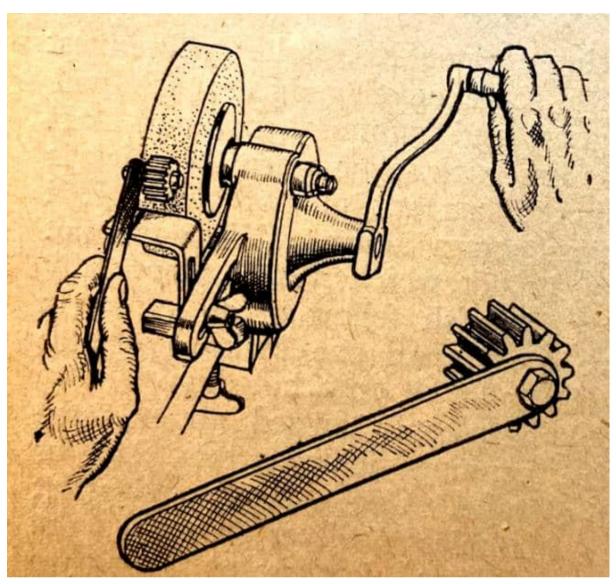
"Massed crowds of spectators watch hot cylinders give off clouds of steam as competitors tackle the watersplash."





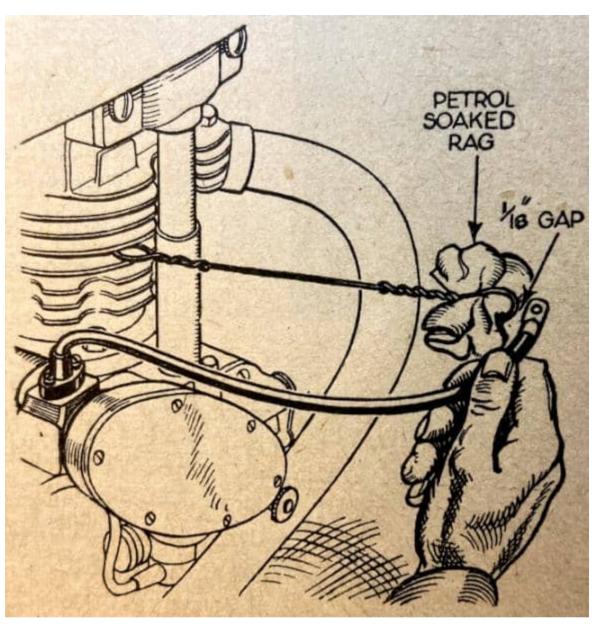
"IT MAY INTEREST READERS with machines fitted with coil ignition to know that two of the twin-cell type cycle-lamp dry batteries coupled in series will provide enough current to get one home should the accumulator run out owing to dynamo trouble. The batteries can be carried in the tool box or mounted on the frame adjacent to the accumulator carrier.—AH"

"AFTER CONSIDERABLE USE grindstones and emery wheels tend to become ridged and uneven, making good work impossible. I succeeded in making a satisfactory truing tool from a short length of mild steel and a small hardened pinion taken from an old Sturmey Archer bicycle three-speed gear. The pinion is attached to the handle by means of a  $\frac{3}{16}$  in bolt and two nuts. To use, turn the wheel at a moderate speed and apply the tool, moving it slowly backwards and forwards across the face of the wheel.—**IDD**"



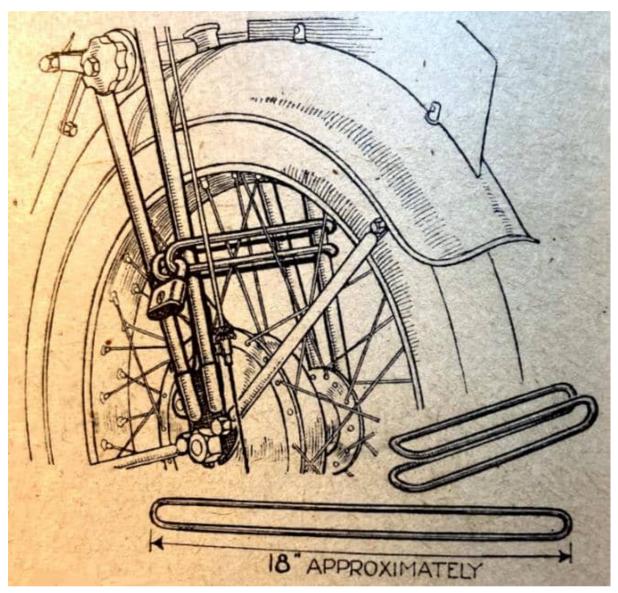
"A cheap and effective tool for removing grooves from an emery wheel made by 'JDD' from workshop scrap. The parts used are a piece of strip steel, a gear pinion, a bolt and a couple of nuts."

"IF YOU RUN OUT of matches while camping or at picnic times, a 'torch' can be made from a short length of wire and a small 'wad' of rag. The 'wad' should be dipped in the petrol tank and placed in the position shown in the sketch. One kick on the kick-starter and it is alight; this 'torch' will burn in a strong wind for several minutes. Care should be taken, of course, to see that the torch is kept well away from the carburetter or other 'dangerous' points.—WA"



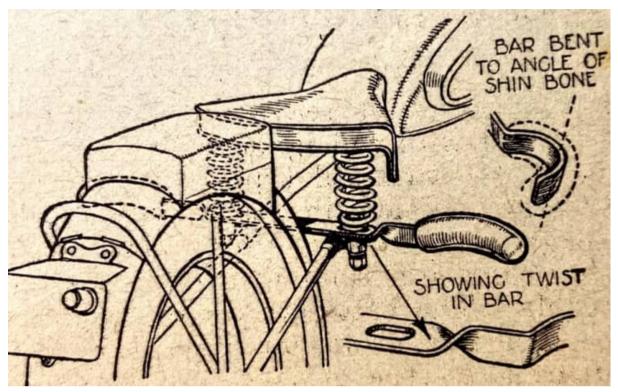
"When you run out of matches this simple petrol torch will solve the difficulty."

"THE FOLLOWING IS HOW I made a cheap and effective locking device for my machine, for use when parking for long periods. I purchased approximately 3ft of ¼in round steel rod and, having a friend who is a welder, got him to weld both ends together to form a circle. I then bent this as shown in the sketch. The device is threaded through the front fork blades and wheel and is secured with a suitable padlock. The length of rod depends, of course, upon the width of the forks.—**CED**"



How 'CED' protects his machine when it is parked for long periods. The components of this simple locking device are a padlock and a length of round steel rod."

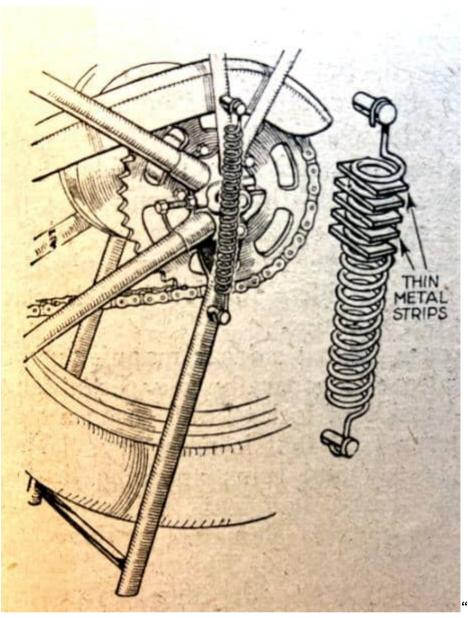
"THOSE who have ridden pillion for long distances will appreciate the devastating effects of braking and steep descents on the passenger; the tendency to slide forward on such occasions can only be corrected by clamping the knees against the corners of the saddle. A device which effectually overcomes this tendency can be made out of a strip of mild steel and a pair of 'Constrictor' cycle handlebar grips. The strip—I used  $\frac{1}{2}$ x' in—is cut, drilled, cold-twisted and bent as shown in the sketch. Then, After a 'fit on' to allow of final adjustment to suit the passenger, it is moderately tempered. Once the strip is in position—the saddle bolts of my Red Hunter Ariel formed the fixing in my case—the semi-circular portions are swathed. in insulating tape and the handlebar grips fitted on top.—**HGW**"



"Comfort for the pillion passenger is assured by this device. All that is required is a length of strip steel and a pair of sponge-rubber handlebar grips."

"ALTHOUGH THE ELECTRICAL systems of many new models are wired in a manner which should defy the ravages of weather and wear, older models are apt to rely on rather flimsy insulation. To avoid trouble it is an excellent plan periodically to overhaul the whole lighting system, taking particular care to provide ample protection for the cables under the tank, at the steering head and forks, and under the saddle. 1 have found that a length of ordinary garden hose, purchased at 2d per foot, is very effective as a means of protection. The cables are threaded through the hose, which is provided with suitable holes for the dynamo and battery leads.—**GP**"

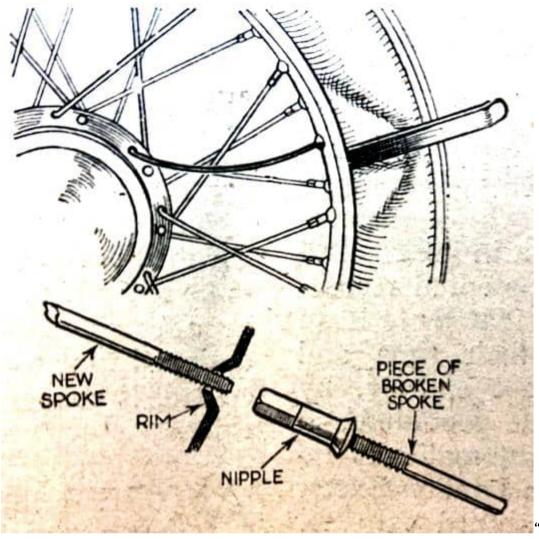
"HERE IS A HINT for the easy removal of back-stand springs, which may be of interest to your readers. First get as many short, flat strips of metal (about  $\frac{1}{16}$ - $\frac{1}{8}$ in thick) as there are coils in the spring. Then depress the stand and hold the spring open. By placing a strip of metal between each coil, the spring is held open and can be removed with ease.—**JAD**"



"Flat strips of metal

placed between the coils of a back-stand spring greatly facilitate its removal."

"THE REPLACEMENT OF broken spokes without removing the tyre is simplified if the following points are observed: Cut or file the new spoke a trifle shorter than 'full length', and file the first two or three threads to a taper to ensure that the spoke engages readily with the nipple. Make certain that the nipple screws easily on to the spoke, and ease if necessary before fitting. Also bow the spoke slightly, as it will then engage with the rim hole. The spoke can be straightened when in position, and becomes taut on tightening to the correct tension, ie, when 'plucked' it emits the same note as the other spokes. The most difficult job is inserting the nipple in the hole and starting it on the thread, at the same time holding clear a stiff cover, the inner tube and rim tape. If, however, another spoke (the broken one will do, of course) is screwed a short distance into the head of the nipple, it can easily be inserted and screwed on to the new spoke while the tyre, etc, is held clear with a tyre lever.—**VDV**"



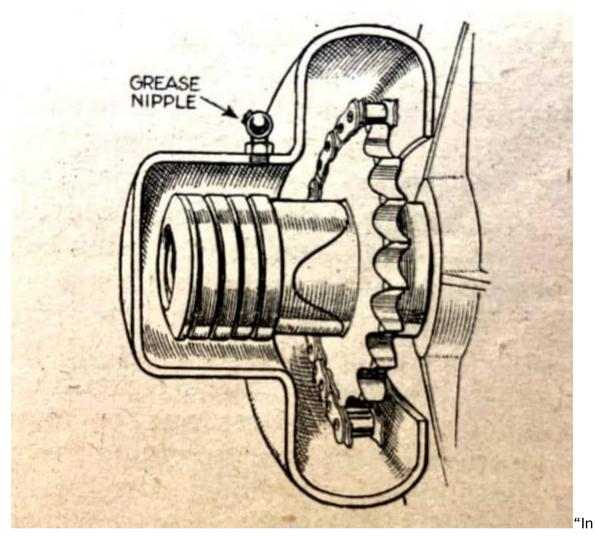
"The task

of inserting a spoke in the rim is simplified if another spoke is screwed into the head of the nipple. The nipple can then be screwed on while the tyre is held clear with a lever."

"IN RAINY WEATHER, the most vulnerable part of a motor cyclist's clothing is the division made by the front tails of the coat as they separate round the petrol tank. If, however, one side of a piece of waterproof material approximately 3ft wide by 2ft long is strapped round the front end of the petrol tank and the opposite side fastened near the centre by clips to the waist belt of the coat, a cape is formed of sufficient width to overlap and protect the rider's knees and thighs. Water tending to lodge in the cape is dispersed by the wind. It is advisable to use press-studs to attach the cape to the body, since there is an obvious danger in being too securely connected to the machine. When the bike is parked, the cape shelters the petrol tank, saddle, oil tank and carburetter from rain. In fine weather, the sheet, without being un- strapped, can be neatly folded on the tank.—**PE**"

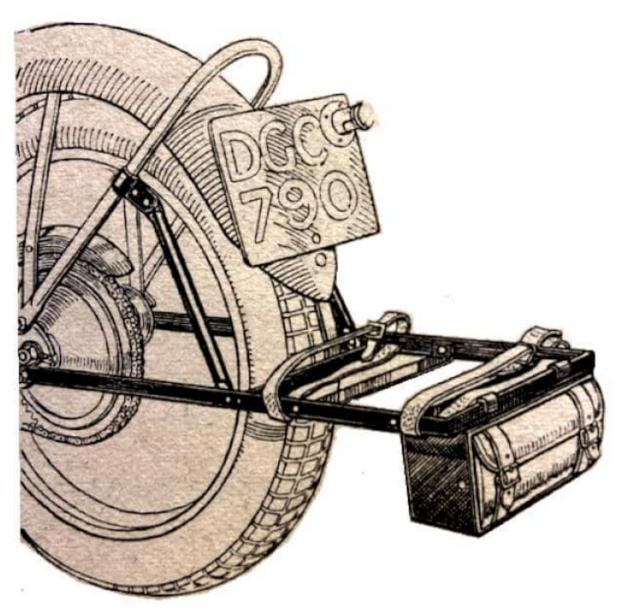
"ALTHOUGH THE USUAL type of engine shaft shock absorber seldom gives trouble, it is essential on machines not fitted with an oil-bath primary drive that the splines on which the cam works should receive a periodical 'dose' of thin oil. Few machines provide for

such attention, and while enthusiasts may choose to remove the primary chain case, etc, this takes a considerable time. To overcome this difficulty, it is a good plan to drill the chain case immediately over the absorber, and screw or sweat in an ordinary grease-gun nipple, so that thin oil may be regularly forced through. Regular attention to this point will ensure that the shock absorber functions correctly, with resultant improvement in transmission and longer life to the chains.—**GP**"



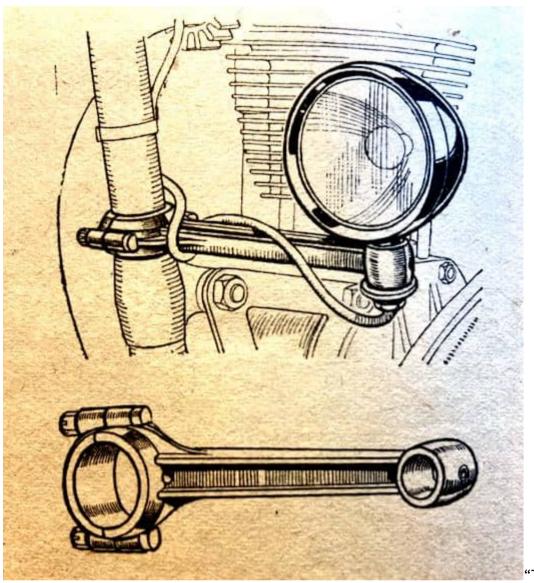
the case of non-oil-bath machines a grease nipple fitted as shown in the sketch renders it an easy matter to lubricate the engine-shaft shock absorber."

"THE CARRYING OF LUGGAGE on a carrier- less solo machine sometimes presents a bit of a problem, particularly if a pillion passenger is to be carried. The way I overcame the difficulty in the case of my Douglas machine was to construct a simple luggage grid from ½x½in mild steel, as shown in the sketch. The device is bolted to the rear wheel lugs and supported by stays from the lifting handle. The idea is no doubt adaptable to many other makes of machine.—**TR**"



"A simple luggage grid for carrierless machines, which 'TR' has constructed and attached to his Douglas."

"A CONNECTING-ROD from a small car engine makes an excellent bracket for a fog lamp, its advantages being lightness combined with strength. The big end can be clamped round the front down tube of the machine, while the lamp is secured by a bolt which passes through the little end. An old connecting-rod can be obtained at the breaker's yard for a very small sum.—**TCF**"



"The

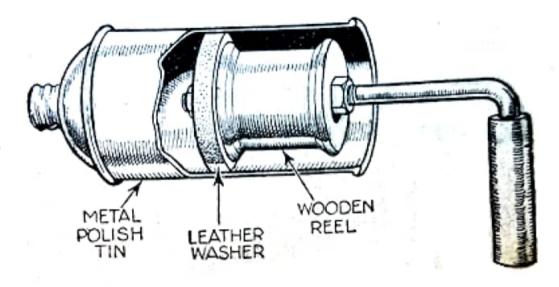
difficulty of accommodating a fog lamp on a motor cycle can be overcome by utilising the connecting-rod from a small car engine."

"A SIMPLE AND effective anti-theft device consists of a 'false' contact-breaker cover. This cover has a small piece of spring, eg, a piece of cycle trouser clip, soldered to it so as to hear on the central stud when the cover is fitted. The piece of spring acts as an earthing switch—in similar fashion to a cut-out—and the machine cannot, of course, be started while the cover is in position.—**DAD**"

"AFTER A DAY in the garage getting one's hands clean again presents something of a problem. A good scheme is to work a semi-dry lather of soap into the hands and nails before starting any dirty work. Then, when the work is finished, washing the hands in warm water will bring out much of the grime with the old soap.—JAB"

"TO AVOID WASTE of oil or grease when filling the gear box it is an excellent plan to use a filler, which may be constructed at no cost from odds and ends. The body may be made from a large-size metal polish tin, the bottom of which has been carefully removed,

together, of course, with the small perforated disc in the nozzle portion. A circle of hardwood, or even a large cotton reel, will serve to form the plunger body, while a suitable metal handle fixed by two nuts will act as handle and also serve to fix the thick leather washer. The attached sketch explains the construction.—**RS**"



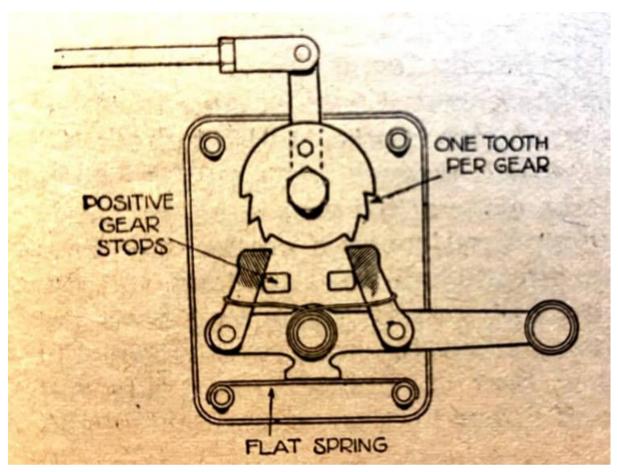
"Made from odds and ends, this gear box filler gun should prevent waste of grease or oil."

"IF A SOFT-METAL 'DRIFT' is not available, a lead cap from a tooth.paste or large rubber solution tube slipped on one end of a steel rod will act as an efficient and convenient substitute.—**EFA**"

"ON SOME MACHINES the magneto is fitted low down in front of the engine, where it is exposed to mud and water. In such cases either a metal shield should be rigged up or the magneto should be enclosed in an oiled silk sponge-bag. If the latter scheme is adopted, arrange the mouth of the bag at the rear of the magneto, or in such a position that the bag can be left partly open without fear of water finding its way inside. Should the bag be completely sealed and there is no air vent, internal condensation will occur, to the detriment of the magneto.—**LG**"

"HERE IS A COLD-weather hint which may be of interest to your readers. An ordinary pullover, worn in the opposite way, with one's legs thrust through the arm-holes of the garment, keeps the lower abdomen and thighs warm. I find it is most effective, even in the extreme instance when one's coat-tails are flying in the air.—**RWD**"

"THE SKETCH BELOW, which is self-explanatory, shows how I adapted the hand gearchange of my 1930 498cc ohv Raleigh to the foot-operated type. It will be observed that the motion is positive and that there are no small parts to wear or break.—**PH**"



"Details of the foot gear-change mechanism constructed by 'PH' and adapted to his Raleigh machine."



"ONE OF THE MOST popular victories ever achieved in the British Experts' Trial was when Vic Brittain (Norton) won the Skefko Gold Cup for the best solo performance in last Saturday's event. This rider has been the most consistent performer throughout the series, having been the runner-up on no fewer than four occasions. His win, therefore, was long overdue and the announcement of his success was greeted with enthusiasm on all sides. The Palmer Challenge Trophy for the best sidecar performance went, once again, to HJ Flook (BSA sc). This is the fifth time in succession this rider has won the Trophy, and Flook is at once the despair and admiration of his fellow competitors. His masterly display was a joy to watch and, like Vic Brittain, he thoroughly deserved his victory. Apart from the winner, the outstanding solo riders were George Holdsworth (Royal Enfield) and Alan Jefferies (Triumph), who finished second and third respectively, the former being only one mark behind Brittain and the latter one behind Holdsworth. In the sidecar class, DK Mansell (Norton sc) made a great effort and got within nine marks of Flook, while WE Hayward (Baughan sc) was a further eight marks behind. The trial

was a very difficult one, especially for the sidecar men. These poor people were sent up hills which only a short time ago would not have been considered, but in the 'Experts' anything goes, and whether (to the onlooker) it appears absurd or not there are no grumblers. Over a great part of the country fog had been the order for more than a week and on the Friday evening it was-still present. Moreover, a sharp frost covered sone of the roads with ice, and things looked anything but promising—unless you happened to be an organiser!—for the following day. However, the morning of the event dawned bright and I, for one, saw the sky for the first time in many days. It was heartening to say the least, and although mist still hung in the hollows it was the last feeble effort of the great black-out. Among my chief impressions of the trial a certain game of darts on Friday at the Bear at Rodborough



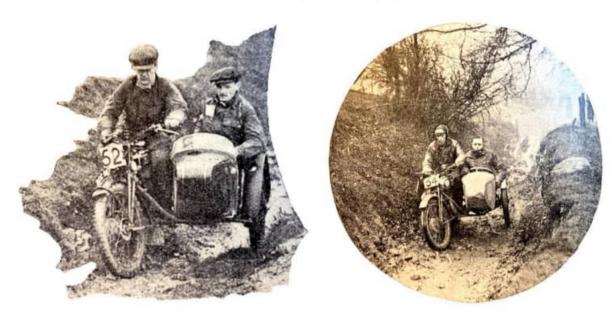


"The winner of the solo cup—Vic Brittain (Norton)—at the start of Weighbridge. (Right) Standing on the rests, WT Tiffen (Velocette), makes an unhurried climb of Breakheart."

stands out rather prominently. Jack White, Gordon Wolsey and Jack Williams were chiefly concerned and, for the moment, the trials of the day to come were completely forgotten. Curiously enough, no terrible stories of the hills—designed to frighten other competitors—were being told by those who had been practising. Actually, very few people took a preliminary look at the hills, but those who did came back in a rather . subdued frame of mind—especially in regard to Woodleigh. This, undoubtedly, was the

most difficult hill in the trial both for solos and sidecars; Hillslie, too, was none too easy, but Breakheart, Hodgecombe, and most of the others were not on bad as they have been, although our old friend BB, especially at the stop-and-go test, was in a pretty wicked mood. I went first of all to take a peep at More Folly, which is a short section consisting of a right-angle left turn, and a very sharp and narrow right hairpin followed by grass and another left turn. When I got there, two small boys were industriously fetching buckets of water and dressing the track with it, a process which was allowed to go on until the first competitor arrived. This man, CW Pembury (Triumph) took the section very gently and mastered it well. He was followed by George Rowley (AJS), who also was on his best behaviour, but Miss RB Slade on a brand new Norton had not the faintest idea where she was required to go and made rather a hash of it. Then Jack White (Ariel), who, I fancy, had demoralised himself during practice, just went wrong and was compelled to put a foot down. In contrast, Bert Perrigo (BSA) showed a refreshing degree of confidence and gave a polished display, a remark which applies with equal force to Charlie Manders (Triumph), who had come over from Ireland to compete. One of the most remarkable displays of 'stationary motoring' I have ever seen was given by N Wolsey (Ariel), who simply hovered, poised on the rests, and then went on to complete a perfect effort. Ralph Dee (Royal Enfield), on a side-valve model once owned by Holdsworth, made the job look easy, but Bob MacGregor (Rudge) came properly unstuck and was diverted up the wrong path. Wheelspin nearly proved the undoing of. Chris Stagg (Baughan), who had to use his feet hard, but Len Heath (Ariel) took the same path without difficulty. Having been advised by 'route-finder' Baughan that Woodleigh would be the best place to see, I now made for this spot. When I arrived I found Albert Milner in charge of the hill; he was up to his knees in mud and marshalling his assistants, one of whom was a most enthusiastic young man who had ridden up that morning from Wincanton in Somerset. At the bottom of Woodleigh was this deep mud, while higher up the most uneven track was very slimy, with protruding tree roots and leaf-mould, and quite a steep gradient. The chief difficulty, however, was a tree which jutted out into the fairway (courtesy title only!) for if riders failed to avoid a rut on the right, they were, for the most part, knocked off their machines by this tree. In the mud were some stones, and George Rowley hit one of these and fell flat in the mire. So did FE Thacker (Triumph). After this both riders made roaring climbs that became a little wild towards the end. Charlie Manders was again excellent, but Vic Brittain was one of those who hit the tree and was knocked sideways. This, too, was the fate of Len Heath (Ariel), while EG Wilmot (AJS) just lay down for little apparent reason. A good effort by WA West (Ariel) was spoiled by the tree, which stopped him, and the same obstacle dealt George Holdsworth a crack and sent him to the ground. In the case of AJ Grover (Ariel), the tree seemed to lean over and knock the rider into the mud. AG Ellis (BSA) rode in the hedge for a long way, but missed the tree higher up. AH Foster (New Imperial) performed in exactly the same way as Heath had done, while Jack Amot (BSA) struck a new note by falling in a place of his own. Taking the hill very slowly and carefully, Billy Tiffen

(Velocette) was as good as any, and Jack Williams (Norton), blipping his throttle as usual, was a model of carefulness and craft. Out for the first time on a Sunbeam, RC Cotterell was good, putting out just a cautionary foot; SR Wise (AJS) found a new course at the bottom and, altogether, made a good climb; G Wolsey (Ariel) stopped in the mud and again higher up; and BB Norris (Red Panther) stayed with the machine throughout a hectic display. I have rarely seen a better climb of any hill than that made by Miss Marjorie Cottle (BSA) on the most difficult part of this difficult hill. She chose exactly the right track, rode at exactly the right speed, and put most of the others to shame. Her effort was surpassed only by



"Weighbridge, owing to its extreme narrowness, was a bit of a problem for the sidecars. Here is WS Waycott (Velocette sc) with 'just room to move'. (Right) HJ Flook (BSA sc)—the ultimate sidecar 'expert'—finds there is only just room for his outfit on the narrow and muddy Weighbridge."

that of Fred Povey (AJS), who took it in his stride at a high speed and completely without effort. Another of the good ones was Jack Booker (Royal Enfield), but TC Whitton (Velocette) went out of his way to hit a tree nobody else had thought about. It looked ridiculous for a sidecar to attempt to miss the tree, the deep rut being placed so as to guide the wheels of the machine straight for it. FH Whittle (Panther sc) found the rut, charged the tree, stopped, ejaculated the word 'impossible', and was lifted to safety. Bumping lustily, GS Hadfield (Royal Enfield sc) slid down into the rut and was similarly assisted, but WE Hayward (Baughan sc), after an unfortunate failure in the mud, drove superbly; scorning the rut and the tree, and refusing to use his feet, he completed a wonderful climb—and thus justified the inclusion of the hill for sidecars. HJ Flook (BSA sc), who hit the tree and stopped, was astonished to learn that Hayward had done it cleanly, but definitely registered relief when he was told of his rival's earlier failure. After stopping in the mud, WS Waycott (Velocette sc) got just beyond the tree before he failed

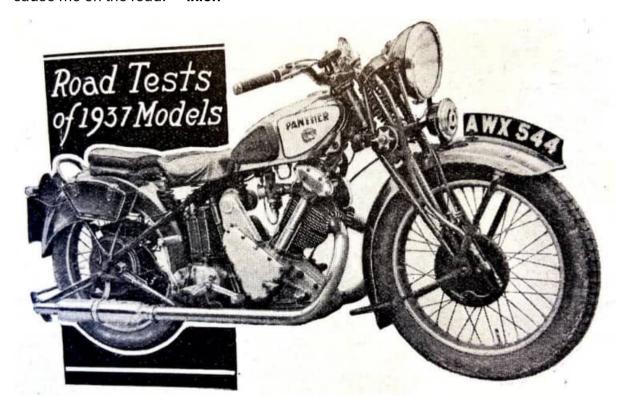
again; Harold Tozer (Ariel sc) did the same as Flook, and later tipped the outfit right over, while DK Mansell (Norton sc) and FR Philpot (Ariel sc) both met their Waterloo at this point. It was clear that there had been some delay, and Hazel was the hill that had been responsible. It was difficult for sidecars, but someone did every section clean, Hadfield and Whittle were pushed up; Waycott was good up to the second section, where he stuck, but made a good climb thereafter; Hayward did as Waycott had done; Flook failed a little earlier than the others, but did the top clean; Tozer footed in the second section and failed at the top; and Mansell was clean after footing in the first and second sections. Hillslie was a 'solos only' hill, and found out such people as Perrigo, MacGregor, Dee, L Heath, G Wolsey, Colin Edge (Matchless), and R Davis (Matchless). Ashmeads and Weighbridge were as easy as they ever have been, so were Whiteway and Hodgecombe, but the latter managed to fail six people. Stanley is an approach to BB and troubled the sidecars a little. Tozer failed at the start of this hill, and all the others failed in the second section with the exception of Hayward, who footed. The stop-and-go test on BB on the first lap having proved a trifle easy it was moved for the second lap and took place on some very slippery and firmly embedded rocks at the top of the hill. Here Jack Williams and Fred Povey were particularly good...Practically all the sidecars made a hopeless mess of it but Mansell and Flook, head and shoulders above the rest, made astonishingly good climbs, Mansell beating Flook for best time. So the trial came to an end just as more fog descended and frost began to cover the roads again. Back at the Bear an eager throng awaited the results, but it was a foregone conclusion that Brittain would be the winner. The announcement was made, there were drinks all round, more darts were played, next year's 'International' and the proposed stock machine TT race were discussed, the crowd dwindled slowly—and so to bed. PROVISIONAL RESULTS. Skefco Gold Cup (best solo): VN Brittain (Norton); marks lost, 7. Palmer Challenge Trophy (best sidecar): H0 Flook (BSA sc); marks lost, 8."



"Before an interested gallery of the 'younger set'. R Davis (Matchless) in action on the mud-and-leaf surface of Ashmeads."

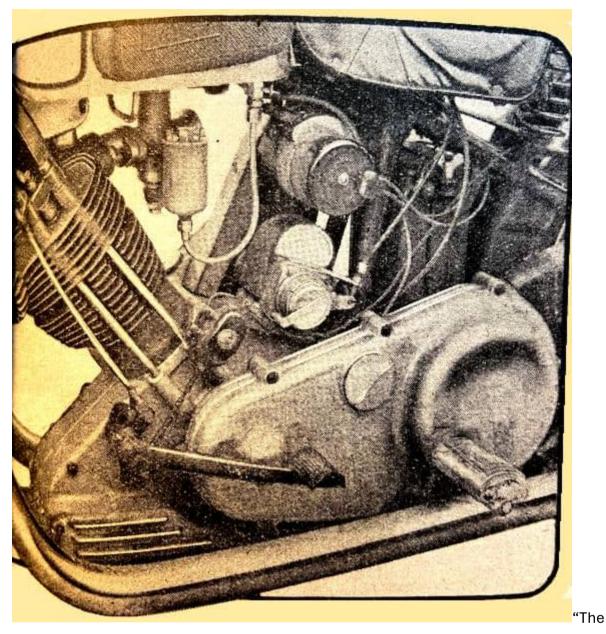
"FOOT GEAR-CHANGE mechanism is fast becoming universal, and there can be no doubt that this method of gear control possesses many advantages over the hand lever and gate. There is, however, one snag which few seem to have attempted to eliminate. I refer to the damage that the pedal does to normal footwear. The toe cap of the appropriate shoe rapidly becomes crumpled through using the foot gear change. What I should like to see would be a pedal in which a soft rubber pad took the place of the present hard rubber casing. Another little point relates to clutch control levers that protrude from gear boxes. On some machines these are rubber covered, but on others they exhibit their sharp corners unashamedly. In the latter case, they very often come in close proximity to the side of the rider's foot, with the result that the shoe becomes badly scratched or waders are cut. Please, designers—all of you—enclose this knobbly piece of mechanism and so help us riders to look less slovenly when we are not on our machines. Here is a little grouse against sidecar manufacturers. The exterior of a sidecar is generally very beautifully finished, but for the inside of lockers and so on a coat of cheap black is deemed all that is necessary. This black rubs off very easily and ruins anything that is carried in the lockers. I have had coats, suit cases and other articles very considerably damaged in this way, and instead of having, at the end of a journey, a decent hat and coat to replace my riding kit these have sometimes been quite impossible to wear until after they have paid a visit to the cleaners."

"I AM AN EXPERT MOTORIST (he said, modestly) as attested by mileage, freedom from accident, and the favour of my insurance company. But I am beginning to wonder whether I am a jay walker, for during the last three months I have had half a dozen hairbreadth escapes of being run down while afoot. Please note details thereof: Not by motor cycles (which generally give plenty of warning of their approach). Not by motor cars (which usually make some noise, and anyhow are so large you can't miss seeing 'em). But by push bikes (which are so silent you can't hear 'em; so small you can easily miss seeing 'em; and if straddled by errand boys, so recklessly ridden that you have to jump smartish like). I feel better now. I've been wanting for a long while to have one back at cyclists for all the nasty things they've said of me, and all the anxiety they cause me on the road."—Ixion



"WHILE OTHER MANUFACTURERS have experimented with different designs, the makers of Panther motor cycles have rigidly adhered to the fundamental principles of the design with which they began. Naturally, improvements and alterations have been made over the years, and as a result the modern Panther is an eminently sound machine. That this policy has been a success is more than proved by the road test of a 1937 model. The machine tested, the 598cc Redwing, is the largest model in the range. When handed over it had covered nearly 3,000 miles. In appearance the machine is striking and the new colour scheme is very attractive. Starting was effortless when the engine was warm, but the engine proved rather heavy to turn over when cold. A decompressor is incorporated in the valve operating gear and with this in use it was found that a long swinging kick would usually start the engine, provided a generous throttle opening and plenty of ignition advance were employed. Once warm the engine

would idle at extremely low revolutions and the only mechanical noise that could be heard was a slight tap from the piston The valve gear is totally enclosed, and as a result valve clatter is almost entirely absent. Praise must be accorded to the silencing system fitted to the Panther. The two pipes lead into tubular Burgess silencers and at all speeds the exhaust note is agreeably subdued. At high speeds a low and pleasant burble can be heard, while at low speeds and in traffic the exhaust noise is so slight as to pass almost unnoticed. Combined with this silence is a very good performance, which makes the Panther a pleasure to ride in congested areas. Acceleration can be used to the full in the intermediate gears without attracting attention, or the model can be ridden almost as a top-gear mount, according to the rider's fancy. Actually, the minimum non-snatch speed in top gear (4.3 to 1) was 18mph, but this does not give a true idea of the machine's capacity for pulling at low speeds. With this high top-gear the model could be ridden up almost any normal main road hill without changing down. Pebblecombe Hill, near Dorking, in Surrey, which has a maximum gradient of one in 51/2, was climbed easily in top, although, of course, the ignition had to be retarded to breast the hill. When riding in town it was found advisable to retard the ignition a little. At the other end of the scale the machine was just as outstanding. The mean timed speed over a quarter of a mile in top gear was just over 78mph, this with the rider in full kit, but 'lying down to it' and sifting on the pillion seat. Sitting normally, the best speed attained on the level was 73mph. Maximum speeds attained in other gears were: third (5.8 to 1), 71mph; second (7.3 to 1), 57mph; and bottom (11.5 to 1), 35mph. The Panther also showed up extremely well as regards acceleration. In second gear less than four seconds were required to accelerate from 15mph to 30mph, while in third gear only a second longer was required. The acceleration is consistent throughout the range when accelerating from 20 to 50mph the figures obtained were equally good. So much for the performance of Panther.



long holding-down bolts passing from the cylinder head to the crank case form part of the frame support in addition to securing the cylinder head and barrel. Note the valve enclosure."

From the figures quoted it will be appreciated that the engine combines a surprising number of desirable characteristics. For a tall rider the riding position is not ideal and the components cannot be adjusted sufficiently to improve matters. This criticism only really applies to the footrests, for if these were fully adjustable the fault would he almost non-existent. The controls are well placed, and all, including the twist-grip, are adjustable. Both the brake and gear pedals are also adjustable for position. The gear lever is very well placed in relation to the position of the right footrest. All the controls were light and pleasant to use. This applies particularly to the clutch, which is light, smooth and positive, and, owing to the oil-excluder in the primary oil-bath never showed the slightest tendency to drag. Thus, clean and rapid gear changes could

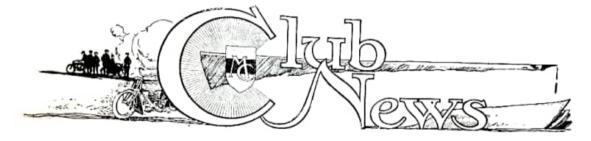
always be made. The brakes on the Panther are coupled, the pedal operating both brakes through cables. Used alone, the front brake was powerful and smooth, and, when used in conjunction with the rear brake, would bring the machine to rest very quickly. Using both brakes to the full, the machine could be stopped from 30mph in 34 feet. Many miles of greasy tramlines and wood blocks were covered during the test, yet never once was a braking skid experienced, although on occasions the brakes were applied heavily. These greasy roads provided a good test of the road-holding qualities of the Panther. The machine is a heavy one, and therefore care was used when negotiating tram-lines. Other than this no precautions were taken in wet weather, but the Panther always behaved perfectly. On dry roads the steering was such that liberties in the way of cornering could be taken with absolute safety. On bumpy roads the rear wheel tended to aviate a little, but in all other respects the steering, road-holding and cornering of the Panther were of a very high order. When testing for maximum speeds the steering damper was tightened a little merely as a precaution; actually this was quite unnecessary, for the model was rock steady at all speeds. Throughout the test the mudguards were well up to their job. On occasions when the model was ridden on wet roads it was noticed that very little water was thrown on to the rider's legs and feet. At the conclusion of the test no oil leaks of any kind could be seen on the power unit. As a result, after several hundred miles of hard use under all kinds of weather conditions, the Panther looked almost as smart as when it was delivered. Finally, the Panther scores very heavily in the matter of economy. Although the engine is a '600' the oil consumption was negligible, being well over 2,000mpg, while at a maintained speed of 40mph the petrol consumption worked out at 92mpg."



"This competitor's machine 'blew up' during a South African grass track race but there was one consolation—he found a proud and willing pusher."

"A START WAS TO BE made to-day on the proposed Crystal Palace road-racing circuit. How much or how little the great fire last Monday night will affect matters remains to be seen."

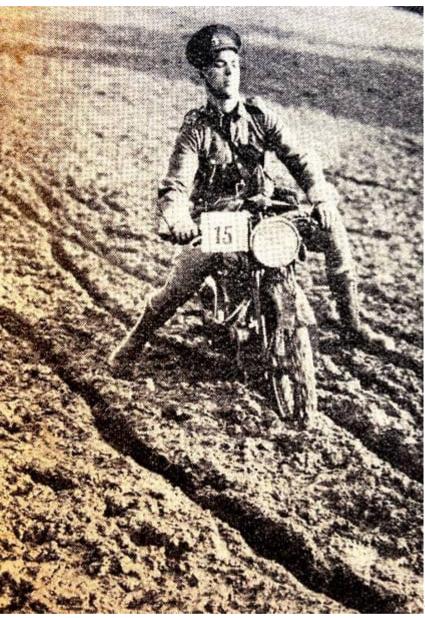
"A MERE CIVIL WAR does not apparently deter Spanish enthusiasts from holding a road race! Recently 27 members of the militia took part in a race on the well-known Montjuich circuit. Although most of them were mounted on 500s, the winner, J. Gili, was riding a 348cc Norton. He averaged 56.9 56mph. Three other Norton machines took part and secured 4th, 5th and 6th places."



MOTOR CYCLE CLUB LIFE was booming. The Blue 'Un devoted three pages a week to club news. The 3 December issue carried seven news stories, 41 one-paragraph reports and, in the 'Club Events for the Week', no fewer than 125 listings for the next six days. Here's a taster: "At this time of year, when annual dinners and annual general meetings

are rife, every clubman has an opportunity of stating his grouses or his ideas. How often one hears groups of clubmen discussing minor grouses about some part of club life and suggesting how they could be remedied. And yet when the annual general meeting comes along how silent these men are! I am thinking in particular of one subject that I have heard dozens of club-men discussing—the subject of awards. Those people who ride regularly and are fairly consistent will know the position very well. Take the case of a man who rides in, say, a dozen open-to-Centre or big group trials in a year. If he is good he may win ten or a dozen first-class awards. At the end of the year he will probably receive ten or a dozen tankards or similar awards. The choice of first-class awards in the majority of club events is necessarily small because there is not much money available, and so there is a tendency towards standardisation ••• Another social 'do' that everyone ought to attend is the Annual Combined Motor Clubs Charity Ball. Apart from the fact that many good causes benefit from the Ball, the evening is always a really good one. Two good bands are always engaged, the cabaret is always well worth seeing, and the fancy-dress parade usually provides enough laughs and general good humour to last the evening. This year there should be no crowding, for the venue is Olympia. Now then clubmen, it is up to you to roll up in your thousands on January 6th! By the way, there will be six hours of entertainment, for the Ball starts at 9pm and goes on until 3am. Tickets cost 3s 6d each and they can be obtained from Mr AE Cooke, 91, College Road, London, NW•••I have always been a keen supporter of the game of motor cycle football. Having played in a team regularly some years ago I feel that it is a game which has yet to be appreciated by the majority. Thus I am more than glad to say that a meeting has been called for December 10th at the ACU Offices, 83, Pall Mall, London, SW1, to discuss plans for the formation of a motor cycle football league for 1937. Naturally the clubs that have played football regularly for some years are the most interested, but any club who can field a team or is interested in the sport at all is invited to send two delegates to this meeting. Full particulars of the proposals can be obtained beforehand froth Mr FE Hawken, 341, Green Lane, Seven Kings, Essex•••The other event is the BSA Trophy Trial to be organised by the **Shepton Mallet Club** on December 20th. It is open to the Wessex Centre and awards will be given for the best performance by a member of every club sending four or more entries. The start will be at Cannards Grove at 11am. Entries should be sent to the secretary not later than December 16th ••• In Yorkshire the social spirit is very strong and in those parts when they have an evening out they tend 'to make a meal of it'. The South Yorkshire Group affair held at the Mikado Café recently was just dinner, prize distribution and entertainment in the heartiest of good spirits. A large party had stormed the Pennines from the west (the East Cheshire Group) and were brought into the fold and further cemented the good feeling that has flowed to and fro across the hills. Altogether a jolly evening with enthusiasts from 20 clubs getting together ••• Grangewood MC&LCC: A dance will be held on December 19th at the Baths Hall, Barking, and all members are requested to attend ••• Itchen MCC&LCC: The Club's first closed trial was a great success. A

sporting course was used, and only three competitors finished. Result: 1, S Kemp; 2, H Corbett; 3, L Higgins... Hinckley Bats MC&LCC: The annual dinner end dance will be held on January 28th at the Masonic Hall, Hinckley, On January 7th the AGM will be held at The White Hart Hotel • • London Ladies MC: The 10th birthday run was held on November 1st, and was well supported. Members were entertained be the chairman to tea and afterwards held a social evening ••• Moseley & DMCC: 120 members and friends, including members of the Midland Social MCC spent an enjoyable evening at the Club's second winter dance, held at the Billesley Hotel•••Lion (Glasgow) MCC: The 4th annual whist drive and presentation of awards was held on the anniversary pf the club's formation. Over 70 members and friends attended, and the evening was most successful. The AGM will be held on December 9th at the clubroom starting at 8pm ••• Cheshunt & DMC: The combined run with the Harringay Club took the form of a pontoon and foraging run. Both clubs lunched at Buntingford and spent a social evening at Cook's Ferry Inn ••• Rookery MCC: 50 people attended the annual dinner. Others attended afterwards to dance and to watch a competition which was won by Mr Felper. Six clubs have accepted the invitation to the treasure hunt on December 13th. W Lees and E Kennard were the winners of the hill-climb ••• British Two-stroke Club: To-night is the opening night of the new northern club-room at the Clarence Café, Booth Street, Manchester, where the HQ of the Northern Section will be in future. J Garner won the foraging run of the Southern Section and Miss B Hayes the ladies' prize. On December 13th the Dickson Sporting Trial will be held. •• Midland Social MCC: 38 entries were received for the main road trial. A feature of the event was the riding of A Hubbard and J Sedgeley, and at the finish only one mark separated their total scores. Results: Best performance, A Hubbard; Best sidecar, J Sedgeley; novice award, A Doran ••• Ilford Amateur: Week-end run to Worthing, meet, Daytona Café, 3 and 10pm ••• Lea Bridge: Dance, The Heathcote ••• Nottingham Tourist: Run to Ireton Club, Chilwell ••• Streathem: Club night, HO ••• West Ealing: Annual dinner, The Park Hotel, Hanwell. Sunday, December 6th ••• Ace (Coventry): Elliot Trophy Trial ••• Ace (Mitcham): Impromptu run, meet, Watermeads, 10am • • Albatross: Bright Trophy novelty event ••• Amateur: Captain's finale, meet 9.30 am ••• Bachelors: Penalty run ••• Bayswater: Run to see Group Trial ••• Bermondsey: Run to see Group Trial, meet, Cory's 9am ••• British Two-stroke: Northern run to Castleton, meet Beauchief Hotel, 2pm; North London: Surprise run, meet, Manor House, 11am ••• Bromley: Run to see Group Trial ••• Cheshunt: Football match vs Lea Valley MCC, meet, CFS, 11.30am ••• Chester: Paper chase, meet Rose's Garage, Parkgate Road, 2pm•••Clapham: Intelligence trial, start, HQ•••Croydon: Treasure hunt, meet HQ, 2pm•••Darwen: Foraging run•••Farnborough: Skating competition ••• Nottingham: Cave exploration run ••• Stockport: Tour of hills ••• Ravensbury: Hiking run ••• Yeadon-Guiseley: Dispatch riders' trial • • • Manchester Eagle: Table Tennis handicap."

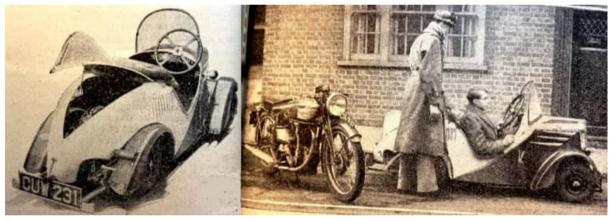


"Join the army and see

the world—and this member of the 56th City of London Signals (Territorials) is seeing a very muddy bit of it as he takes part in a map-reading contest near Latimer (Bucks)."

"MANY PEOPLE SEEM WORRIED regarding the various new regulations that came into force last October or are operative from January 1st. The former regulations concern lighting. No longer may one keep one's main or dipped beam on when one's machine is stationary; in these circumstances the maximum power of the light or lights shown to the front is 7 watts each. In addition all lamp bulbs most have their wattage stamped on them. The anti-dazzle regulations only affect machines registered for the first time—they do not come into force as regards existing vehicles until October next year. The above is briefly the position as it affects motor cyclists. There is, however, a regulation about safety glass that is operative from January 1st. On and after that date the windscreens of sidecars and three-wheelers must no longer be of ordinary glass. Safety glass or celluloid, as the case may be, most be the rule."

'BLUE 'UN' STAFFER 'CENTAUR' was surprised to be sent out in a four-wheeler, particularly a car that was in use as a funfair ride. He wasn't impressed by the news that it was powered by a Villiers 250cc two-stroke lump. However, he squeezed himself and a passenger into the Scoota-car and "in a very few miles I felt perfectly at home, and buzzed in and out of the London traffic in a way that could only have been equalled by a solo or a narrow, very nippy sidecar outfit. This liveliness vas, indeed, one of my outstanding impressions of the machine. Another was the perfect steering under all conditions of road surface—a flick of the wrist would bring the steering from one lock to the other; but if the steering wheel was released the front wheels would always straighten out of their own accord. Over the cobbled streets of the South London suburbs we had a good chance of testing the comfort of our baby car. In these circumstances there was a certain amount of 'dancing'—probably due to the absence of front-wheel springing—but the big little 16x4in. tyres effectively damped out anything in the nature of shocks. Our objective was a certain wide by-pass, where we hoped yo prove the manufacturers' claim that the Scoota-car was capable of 45mph. An our journey was in the nature of a



"The entire 'works' are rendered accessible by means of the hinged tail. Note the kick-starter pedal at the rear. (Right) Small in size but capable of a big performance, the Scoota-car has a sturdy all-metal body with distinctly 'racy' line."

triumphant progress. Public interest in the little vehicle was intense—a mixture of admiration and amusement. By the time we reached the by-pass my passenger, who had confessed to certain qualms at the beginning of the journey, was singing lustily, thus showing his complete faith in the Scoota-car—or its driver! Then he echoed my own thought, with the remark, 'It's a funny thing, but I feel as though 1 am in a pukka sports car.' And that just about explains the confidence the little Scoota-car gives one after a very short acquaintance. It is definitely not a toy, and anyone can buy one for a matter of £80. Soon the houses and traffic were left behind, and I gradually opened the throttle. The speedometer needle rapidly climbed round its dial, and the gentle purr of the two-stroke engine changed to a high-pitched snarl: 35, 40, 45—still the throttle was not fully open! However, as the engine was nearly new, I let it go at that…On the journey

home I made a detour to include a long main-road hill with a maximum gradient of about 1 in 6. To give the little car every chance I dropped my passenger, and then rushed the gradient in second gear. The speedometer needle showed a steady 23mph all the way up, and even began to rise as the gradient eased. There was no doubt in my mind that the car would climb practically any main-road hill with ease, two up. As a final test I tried fast cornering and braking—on wet roads...there was never any tendency to 'lift' on bends, or to skid if the brakes were violently applied...When eventually I returned the Scoota-car to its owners I was left with the guilty thought of how badly I had misjudged a splendid and thoroughly practical little vehicle."



"This photograph gives a good idea of the tiny proportions of the Rytecraft Scoota-car—it is completely dwarfed by the rider on the solo motor cycle."

"ENTHUSIASTS AND FOLLOWERS of the trials game had ample opportunity to study and learn the various methods employed by the star riders during the course of the recent Southern Experts' Trial. It was an ideal event to follow, for the course was sufficiently varied and difficult to cause the riders to resort to a variety of tactics, sometimes in one section alone. As the name of the trial suggests, it was an event open only to the 'experts' (ie, riders with certain specified trials qualifications) residing in the South, or more particularly in the areas covered by the Southern, South-Eastern, South Midland and South-Western Centres of the ACU. This year's event, the sixth of the series, was organised by the Sunbeam Club in co-operation with the Ringwood MC&LCC. As a matter of fact, the scene of activities was laid, metaphorically speaking, on the latter's own doorstep. A more suitable area would be hard to find, lying as it does on the fringe of the New Forest. The start of the trial was from the 'As You Like It' Café, which lies midway between Ringwood and Fordingbridge. A short course, well under 50 miles in length, was used, and this included some 20 observed sections. Most of the

sections were on private property—a fact that suggests landowners in this part of the country are as enthusiastic about the trials game as those intimately connected with it. For the duration of the trial the weather was ideal. Rain for several days previous to the event had brought the condition of most of the observed sections to just the right pitch. The first section, known as Midgeham Farm, was unusual in that





"Leaf-mould and mud held no fears for AG Ellis (348cc BSA) at the top of Midgeham Hill." (Right) "After a brilliant ascent of Holywell 'A', GE Rowley (495cc AJS) found his front wheel slipping away on the descent and was compelled to foot hurriedly."

the riders were required to descend singly the right-hand side of a steep track, turn round a sharp artificial hairpin bend at the foot, and ascend the other side of the track. A surface of deep-leaf-mould and mud added to the fun. Of the early numbers, NJ and GA Wolsey, both on Ariels, and HC Wake (346cc Sunbeam) tackled the bend at the foot in similar style, poised on the footrests and using every inch of the available space. HR Taylor (490cc Norton sc) negotiated the bend with comparative ease and got away up the hill without fuss or bother. Similarly, EJ English (499cc Royal Enfield sc) made an effortless show, although at times his outfit tended to crab sideways. GM Bryant (498cc BSA sc) was not so fortunate. and stopped halfway up. DJ Nash (497cc Ariel) was excellent both on the descent and round the bend at the foot, but near the summit his gear jumped out—and that was that! Most of the solo men showed extreme caution on the descent, but the methods of tackling the bend at the foot were extraordinarily varied. Some stood up, others remained seated, while many inadvisedly attempted to cut the hairpin, only to finish on the bank at the side. The real pièce de résistance of the trial, however, was undoubtedly the section known as Holywell 'A'. Here, all types of going were encountered. First the riders had to tackle a muddy lane through a farm. Then came an ascent up a mud-covered chalk bank into a field, where rutted mud caused many marks to be lost. The field itself lies on the side of quite a steep hill, and the competitors bad to ride up the muddy slope to the top, make a sharp right turn, and then descend the chalky bank which they had just climbed. HR Taylor (490cc Norton sc) made a brilliant ascent of the chalk bank, but the climb up the field brought him to a

standstill. Jack White (298cc Ariel) was his usual brilliant self here, while the Wolsey brothers were both excellent. EG Wilmot (246cc AJS) carefully blipped his throttle as he tackled the chalk bank and then proceeded to open up for the ensuing climb up the field. But he was a trifle too cautious and had to foot at the summit. EJ English (499cc Royal Royal Enfield sc) kept his throttle open too long on the ascent of the chalk bank, and wheelspin caused the outfit to crab and stop in a rut. Careful use of the





"WS Waycott (348cc Velocette sc) rounds the top bend of the last hill, Vennars. He was the only competitor to finish without loss of marks." (Right) "HJ Flook (499cc BSA sc) storms the most difficult part of Holywell 'A' with comparative ease."

throttle enabled JFS Polden (493cc Triumph) to climb the bank without footing. He was also good on the ascent of the field, but on the descent he came unstuck. CN Rogers (346cc Royal Enfield), on the other hand, roared up the bank at speed, only to spin right round at the top. But for this lapse he made an excellent show. WA West (497cc Ariel) encountered trouble early on by running into a hay-stack, but made amends by a fine feet-up performance in the other sub-sections. Both A Cole (497cc Ariel sc) and S Appleby (493cc Norton sc) stopped many times, but the former made a fine climb up the field. The next man, AJ Grover (348cc Ariel) started by falling flat in the mud, but later went on to make a careful and clever climb. Another good climb was made by AA Smith (348cc Calthorpe), who made sure of things by footing occasionally. RG Tomson (349cc BSA) drew the applause of the spectators for his dogged determination to avoid footing at all costs—and a very good job he made of it, too. Then came those two past masters of the art of sidecarring—HJ Flook (499cc BSA sc) and WS Waycott (348cc Velocette sc). It is not often that one has the pleasure of seeing these two tackle a section one after the other. Flook approached the bank cautiously and then opened up hard. Keeping his motor flat-out he got up the bank in style, but as he tackled the hill into the field his outfit slowed for some unaccountable reason. It was a case of touch and go for a few minutes. Eventually—it seemed ages to the anxious spectators—he breasted the summit, and was heartily applauded for his effort. Waycott adopted different tactics. Rushing the bank at the foot (in spite of the left bend on the approach) he opened up, and whenever wheelspin threatened to become a danger he throttled back. Without losing speed he chose a path up the field that was well to the left of previous attempts

and swept up in style, his motor producing an almost incredible number of revolutions. Well did he earn the applause of the spectators. GE Rowley (495cc AJS) was the next to make a really brilliant show. Squaring up his approach to the chalk bank, he rushed it as fast as he could, blipping the throttle the while. He carefully picked his way over the ruts at the foot of the climb to the field, and then opened up to reach the top feet-up. But on the descent his front wheel slipped—and George had to foot. Next came Len Heath and Joe Heath, on Ariels. Both made truly brilliant climbs and descents. The former, more cautious than usual, had a spot of bother at the top, but Joe managed to keep his feet up all the way—a seemingly impossible feat at this stage of the proceedings. After Holywell 'A' came another section known as Holywell 'B' but this, as with the other remaining sections, caused very little trouble. The last hill, Vennars, would have caused unlimited difficulty on account of a steep grass bank, but after the first few attempts the upper section was abandoned. And so the trial ended with only one clean sheet remaining—that of WS Waycott (348cc Velocette sc). One rather fitting point about the results is that three different Centres are represented in the first three places of the solo group. RESULTS. Southern Experts' Solo Cup: EJ Heath (497cc Ariel). Southern Experts' Sidecar Cup: WS Waycott (348cc Velocette sc). Next 10 solos, in order: GE Hale (348cc BSA), CN Rogers (346cc Royal Enfield) and NJ Wolsey (497cc Ariel), HC Wake (346cc Sunbeam), GA Wolsey (497cc Ariel), AG Ellis (348cc BSA), RH Snelling (346cc Royal Enfield), (GE Rowley (495cc AJS), FR Simon (248cc Trlumph) and R Davis (347cc Matchless). Next four sidecars, in order: HR. Taylor (490cc Norton sc), HJ Flook (499cc BSA sc), EJ English (499cc Royal Enfield sc) and WJ Stocker (497cc Ariel sc)."



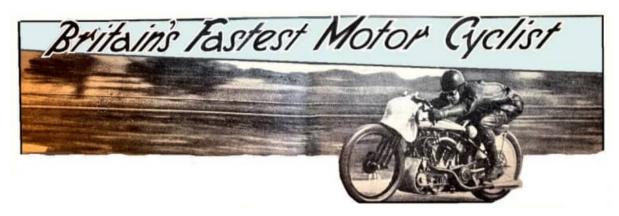
"Extreme caution characterised Len Heath's descent of Holywell 'A'."

"1936 HAS BEEN A YEAR of almost unparalleled achievement for British motor cyclists and the British motor cycle industry. On the sporting side Britain has very nearly swept

the board, while in exports she has cemented her position as the greatest motor cycle exporter in the world. With one exception every big international road race, both 500 and 350cc, has been won by Britain. This, in truth, is achievement. In the International Six Days Trial, held in Southern Germany, Britain wrested both the International Trophy and the International Silver Vase from Germany and gained two of the only four manufacturers' team prizes to be awarded. In addition, each member of her three official teams and the reserve—10 men in all—covered the 1.390 miles without loss of a single mark, while of all the national teams to finish without loss of marks no fewer than 12 of the 15 machines were of British manufacture. The one-mile record has been regained from Germany with a speed of 163.82mph, but Germany on the very eve of the British attempt raised the flying kilometre record from 159 to 160mph. Therefore, the world's maximum speed record remains uncaptured. That other classic record, the 500cc hour record, continues in British hands and has, indeed, been raised still higher. On the export side there has been a big increase in the number and value of motor cycles and three-wheelers. Compared with 1934 the exports for the first 10 months of this year are up by no less than 22%, and the probability is that the total value for the year of the machines, parts and accessories exported by Great Britain will amount to the huge total of £1,100,000 [about £65m today]. The figures covering the number of machines exported are telling: in 1934 the number was 13,614 for the 10 months; last year, 14,879; and this year, 16,399 [multiply that number by the average price of a new bike in 2023 and the figures nigh on £200m]."

"YOU CAN GAUGE SUPREMACY by two main tests. One is speed, the other is commercial dominance. So far as commercial predominance is concerned, with few exceptions foreign models are based mainly of British notions, and in many instances are copies of ours, and not too intelligent copies at that. Our products sell in all competing countries, in spite of tariff walls. I can name only about three or four foreignbuilt machines which would enjoy any market here if tariff and exchange permitted them to compete in price; and even these would sell only in small numbers. Our own range offers infinite variety and equal quality. In the matter of speed we are still invincible. with three exceptions. The BMW has accomplished more than our machines in world's land-speed records; but this is a sentimental affair rather than an honest-togoodness defeat, for we have no roads where such feats can he done; and Fernihough has proved that, given reasonable facilities, we can flutter the great Ernst Henne. The DKW two-strokes are faster on flat circuits than any of our 250s; but they are unreliable on hilly courses. The supercharged BMW is faster than any of our 500s. We shall have to make up our minds in 1937 whether we are going to race with 'blown' engines, and if so, whether we are going to solve the problems of blowing singles, or take up twins and fours for racing. There! I have tried to be quite fair, and think that the above states the facts with tolerable accuracy. It is obvious that in the field of speed we shall lose our advantage gradually unless we go in for 'blowers' and develop our 250s with more

energy. But we are bluntly and undeniably on top with the 'unblown' four-stroke single in all its grades. And that engine has hitherto ranked as the most generally useful model for commercial purposes. Seems to me that a docile, medium-weight multi is the crying need of the world's motor cycle industry for ordinary roadster purposes...My mind perpetually runs back to old small flat twins. To-day we could make those bikes as reliable and durable as they were—in their better moods—charming to sit and handle. But a four-cylinder of the same capacity would be better still. Trade is booming, and our sorely tried factories see a prospect of funds becoming available for experiment. I hope some of them will visualise a docile and well-built small multi as the first step in cementing supremacy."—Ixion



"I AM BEING BLOWN BACKWARDS off the machine; will the handlebars stand the strain?' So ran the thoughts of EC Fernihough. He was slowing down from somewhere about 170mph and had been caught napping through sitting up too early. The bars stand up, but the lesson is one that Britain's fastest motor cyclist will never forget .This experience of his gives some idea of the colossal air pressure. So does the fact that on his first trial run at Frankfort he was nearly blinded by his goggles. The wind pressure was so great that the lenses of his Meyrowitz goggles were pressed hard upon his eyeballs. Thereafter he took care to set his goggles on his cheek-bones. In addition, he cocked up the special cowl that you see around the steering head of his Brough Superior so that it broke the windstream and tended to divert the air blast over his head. In my chat with. Eric Fernihough I naturally asked him what it feels like to travel at speeds of 160 and 170mph. To my surprise he replied that, except on the occasion when his goggles were pressed on his eyeballs there was no blurring of the landscape at least, none that he noticed. On the contrary, he was surprised how clearly he could see things when flat out. A good example of this is his experience at Gyon, where he broke the one-mile 1,000cc record at a mean speed of 163.82mph. He had a reminder of Henne, the man who, when Fernihough had everything taped for regaining the world's maximum speed record for Britain, bumped the record up from 159mph to 169mph. Fernihough, on leaving these shores for the Continent, had only 159mph to beat, and as soon as he got to the other side another 10mph had been added to the figure! He needed no additional reminder of Herr Henne, but he got one at Gyon—in the form of a

hen and its family. Mother and chicks nearly gave him a heart attack. They proceeded to cross the road just as he was coming along with the Brough whanged up to its maximum. What would happen if he hit mother or a member of her family he had no idea—he could only guess that with his speed the effect might be that of being struck by a small shell. So clear was his vision, even at 165mph, that he was actually able to count the chickens as well as work out the probabilities of hitting one of them. The relative velocity of chicken was just high enough; he missed the lot, escaping with one of the biggest frights he has ever had in his life. That gives an idea of the clarity with which the rider can see things ahead. Fernihough's biggest impression was connected with the effect of air pressure. He rode as he rides at Brooklands—that is, he lay with his body close down and arms straight and merely, every now and then, tilted his head and looked over the steering-head cowl. Whenever he looked up he found there was a stifling effect, and at the end of each run he was out of breath, partly because of this and in part as a result of the effort. One might think that lapping a saucer-like Brooklands requires more effort on the part of the rider than hurtling down a straight section of road. In Fernihough's experience this is not so. It is the record attempts that take more out of the rider. Because of what might happen—not what does happen—the rider has to hold on like death, pulling on the bars with all his strength. At the track, he says, it is merely a matter of using one's strength in holding the machine after it has hit a bump. On the record attempts, on the other hand, it is a case of being all tensed up from start to finish—there is no room for mistakes. A point that has always interested me is how it is that Fernihough, who made a habit of appearing on small machines, notably 175s, suddenly went to the opposite extreme and raced 1,000cc twins. The primary reason is probably that while he loves racing motor cycles, and riding and tuning them to a degree that is almost fanatical, he has to look at the matter from a business angle. If you ask him what feat he is most proud of he will probably tell you that it is breaking the 175cc Brooklands lap record at 86.92mph. When his thoughts turned to 1,000cc engines and the possibility of breaking the world's maximum speed record, that there would be any special difficulty on the riding side never entered his head. What he was thinking about was getting the urge. Actually he has two 1,000cc racing engines. Both are JAPs, of course. He has been using JAP engines ever since 1923, and every speed win he has had, and all of the 80-odd world's records he has broken, have been on engines of this make. He is not likely to change, for the JAP folk take a real interest. The engines he is using now are built up of parts of a variety of designs. The cylinder heads are of the dirt-track type. I saw one of them just as it had been removed from the machine. There was not a sign of heat in spite of the forced induction.



Fernihough—tuner and rider of the world's fastest big twin."

He has, he said, had no trouble at all in this direction. Indeed, his difficulty has been that he has been oiling-up sparking plugs even when flat out. Of course, he first used the engines without a super-charger. Finally, he got them to such a pitch that one did 136mph over the half-mile at Brooklands and the other 141mph. Even higher speeds would have been obtained, of course, with a pukka flying start. Anyhow, he knew that with 'blowing' the speeds should be adequate to beat the then existing maximum speed record. This seemed a certainty when he took out a machine in its 'blown' form just before going abroad this year. The second quarter-mile at the Track was covered at 150mph with the machine still accelerating. Incidentally, this try-out was just after the Brighton Speed Trials. But it was the step from his 150mph at the Track to 165mph on the Continent that seemed so colossal. He began to realise how fantastic wind pressure must be in the case of Sir Malcolm Campbell's 300mph car. As all know, the pressure goes up approximately as the square of the speed, and Fernihough found that there was

a very noticeable difference in the way he had to hang on to the machine. The blessing was that never once did the big Brough Superior give him a fright; its handling, he says, is simply superb. Fernihough's methods are interesting. He does not use a rev counter; he is one of those people who do all their riding by feel. He changes to a higher gear when he feels that the correct instant has come. He could not do this, however, when out for the real high-speed stuff at Gyon. There, the idea of slipping into top gear at something over 100mph had to be ruled out, for the standing starts necessary for the standing-start records had done the far-from-new racing gear box, one never designed for 1936 'blown' power, no good at all. Consequently he had to get into top at low speeds and, once in direct drive, whang the throttle open. Right down to it, endeavouring to reduce windage to the absolute minimum, he would hurtle along to the measured section with its electric timing. At the other end he could have shut off suddenly—the machine handles so well—but for safety's sake the throttle was always closed gradually. In view of his experience early on he was very, very careful not to start sitting up until the machine had slowed down appreciably. Braking, however, proved a big problem. After a while he did experiment with his body as a wind brake. He tried the result with cat-like cautiousness. Given cunning, the effect of his body as a brake was almost uncanny in its efficiency. What will surprise many is the fact that never in his riding experience, which includes goodness knows how many road races, has Fernihough given his brakes so much work to do. Brakes are really important in attempts on short-distance records—unless, of course, the course is pretty well unlimited as to length. Adventures are supposed always to go in threes. In his efforts this year, which have involved 5,000 miles of travelling and crossing three dozen frontiers, Fernihough has had his trio all right. Two of the most exciting I have mentioned already. The third was on the return run when he broke the standing kilometre record at an average of 98.91mph. He was kept waiting rather a long time before making his return trip. Unfortunately he overlooked the fact that his oil drip for the front chain was causing a pool of oil on the road. His cavortings as he got off the mark rivalled just about anything a spectator can see on a really slimy hill in a trial! They had their effect upon the speed, for whereas his average for the outer run was 103.56mph, his mean speed was down to 98.91. On his trip to Frankfort Fernihough, of course, saw Henne and his 'submarine-ontwo-wheels'. His admiration for Henne and Henne's grit is unlimited. Finally, a few words about this Englishman who is Britain's fastest motor cyclist, and who the tuner and rider of the fastest, more or less orthodox motor cycle in the world. You may or may not that this tall, rather thin man with glasses was winning races for Cambridge in inter-Varsity events in about 1924. He is a Master of Arts, married, and runs a garage and tuning station that backs on to Brooklands. As a tuner he has few equals. He beat works men in the days when he was little more than a stripling, and all through his own efforts. I have said that he is an Englishman, but he was brought up in Northern Ireland. His age is almost exactly 34, and after his record-breaking on the thousand he received congratulations from a manufacturer, accompanied by the statement: 'It is a

considerable risk for a man of your years to take!' His successes are the result of taking pains. The details of every experiment are jotted down in a carefully guarded notebook. In addition, he believes in training; he has been in training ever since he started riding big twins. At the moment he is disconsolate—there is an extraordinary lack of financial interest in the worlds maximum speed record, which is a bar to farther attempts."



"Playing a lone trial: Hans Bock, a Mannheim rider, has a remarkable string of successes to his credit in Germany with his 490cc International Norton. He tunes the machine himself and rides in both solo and sidecar events."

"WITNESS AT TOTTENHAM: 'The occupants of the police car were arguing with another motorist. The police were easily getting the best of he argument owing to their having a loud-speaker on the roof."

"THOUSANDS OF MOTOR cyclists rode to the Crystal Palace and to the various 'high-spots' around London to see the great fire last week."

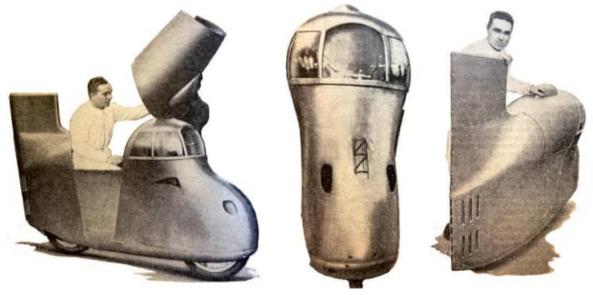
"ALL THE NEW MODELS now look just like the 61 OHV. Yes, sir, and yes, ma'am, that's what I said. Ain't that sump'n? Does that news kinda make you dizzy?'—1937 American motor cycle catalogue."

"REPLYING TO A QUESTION in the House of Lords, Lord Erne stated that the Government still considers there is no justification for building a Channel Tunnel between England and France."

"REGISTRATIONS OF NEW motor cycles during October last showed an increase of nearly 13% compared with the corresponding month a year ago. The total number registered was 3,419. All classes of motor cycle (with the exception of three-wheelers) showed increases. During the first 10 months of 1936, 49,820 new motor cycles were put into use, an increase of over 17% compared with the same period in 1935."

"IN REGARD TO THE PROPOSED formation of a 'Motor Cycle Football League', I should like to place our experience before you. We have been playing since 1923, having played most of the best teams in the game. Nowhere has the game been better played and staged than at Cheltenham, but from a splendid start the support dropped away until the game was finally given p. During the last two years our own games have hem chiefly at shows, country fêtes, etc. In 1935 we used to play with the ordinary ball for the first part of the game and the big Moto-Ball (as used in France) for the second half. The opinions repeatedly passed to us show that while the small-ball game held the spectators interested for five or ten minutes, the much faster game with the Moto-Ball held their interest until the final whistle. Last year we confined ourselves to playing Moto-Ball. Contrast the position of the game in France to-day with ours—over there, nearly 100 teams known to be playing, 50 or more of these entered for the National Knock-out Competition. We have met the champions of France on five occasions, being well beaten every time, I am sorry to say. On their visit to England in 1934, besides beating us three goals to nil, they met a team from Coventry Ace Club, the result being 6-1 in the visitors' favour. They could not get public support with the small ball, so they settled on the size they now use, and their average 'gate' is better than most Third Division football clubs. Quite a number of clubs over there own their motor coaches, which take their team, supporters, and machines from one end of France to the other. Now, here is a challenge. We are willing to play any team in England, at home or away, on free return basis, playing one half with each ball as a test of which the public likes the better.

**Jack Smith**, Chairman and Captain, Chester Motor Cycle Display Team, (A section of the Chester MC), Chester."

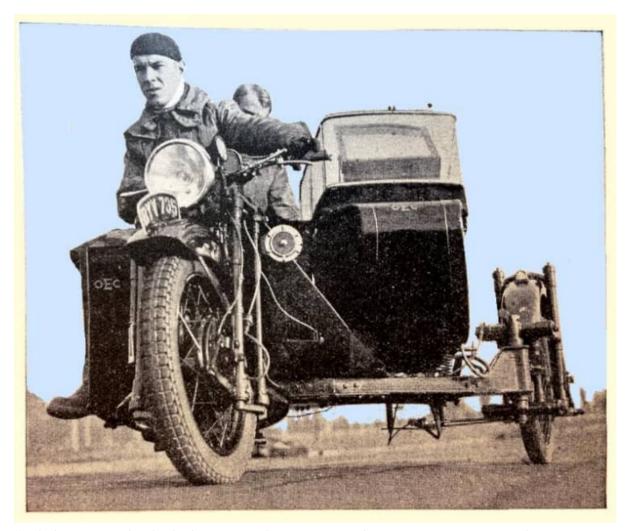


L-R: "This photograph of the machine good gives a good idea of its low overall height and

the clever manner in which the streamlining has been carried out. At first glance this might be mis-taken for some new form of traffic beacon. Actually it is a front view of the new Gilera. Taruffi seated in the streamlined super-charged four-cylinder Gilera in which he is to endeavour to break the world's maximum speed record held by Henne. The attempts are to be made on the Florence-Lucca road this week." [the fairing, developed in the Caproni company's wond tunnel, was certainly a tight fit—that bulge was needed to fit round Taruffi's skidlid.]

"LET ME ADMIT IT: When I wrote the article 'All-enclosed Machines Must Come!' I had not seen the photograph above! I said I did not postulate the car-on-two-wheels type of vehicle, though even this would probably be universal one day. For attempts on the maximum speed record it seems to have 'come' with a vengeance. Even by the time you read this, Taruffi with his supercharged four-cylinder Gilera may have attempted to beat Henne's submarine-on-wheels. He is to have a shot on the Florence-Lucca road. Details of the machine are sparse at the moment, but the basis, it appears, is the Rondine. It seems that Britain will have to go in for similar totally enclosed record breakers if she is to regain the record." Taruffi and the transverse-4 Rondine—now competing under the Gilera banner—set world records in the 500 and 750 classes but wasn't quite fast enough to snatch the 1,000cc record from Pope and the Brough Superior.

"SOME EXTREMELY INTERESTING experiments in regard to skidding have recently been carried out by the Department of Scientific Research in conjunction with the Ministry of Transport. The vehicle used for the purpose, strangely enough, is the one that is least prone to skidding of all motor vehicles, namely, a sidecar outfit, but it is not a sidecar outfit in the trim in which we, as motor cyclists, employ it. The machine which has been used of late is an OEC, with a 1,000cc side-valve JAP engine, a duplex frame, a channelsteel sidecar chassis, springing of all three wheels, and a sidecar wheel which can be set at any angle in relation to the wheelbase of the machine. The important factor is this last—the angle at which the sidecar wheel is placed relative to the wheelbase of the motor cycle. While a small amount of 'toeing-in' is known to be desirable from the point of view of good steering, it is obvious that when the wheel is at a big angle to the wheels of the machine there will be a large force tending to cause the wheel to take up the appropriate trailing angle relative to the wheels of the machine. How great this force is depends upon the adhesion of the sidecar tyre relative to the road surface; in other words, here we have a measure of the grip of the tyre sideways, or, put another way, the anti-skid properties of the road surface. What the Research people do is to drive the sidecar outfit at varying speeds over sections of road surfaces and determine how great the force is on this strangely positioned sidecar wheel. Thus they can measure the antiskid properties of various road surfaces under various conditions. Some of the results could be enumerated by any motor cyclist of experience. For instance, in the report just published it is mentioned that 'probably the most slippery conditions are during a "silver thaw", that 'wood paving in towns shows some low values of the co-efficients' and roads generally are 'more slippery when wet in summer than in winter'. Such comments are apt to make the motor cyclist tired, because these are known, obvious facts, and 'authority', the report would seem to suggest, is just waking up to them. It is perhaps easy for those who ride upon two wheels to be cynical. No one knows better than we do whether a road surface is safe or not. 'Authority' estimates the cost of a sidecar outfit for the use of surveyors to determine whether their roads are safe or not at approximately £475; I could provide them with information at very much less if they would stop all other traffic!



"This is the special OEC sidecar outfit used for testing road surfaces. The sidecar wheel can be set at varying angles in relation to the wheelbase of the machine."

"WE HAVE READ WITH much interest Nitor's remarks dealing with all-enclosed machines. In referring to the question of accessibility, Nitor mentions the Francis-Barnett Cruiser. We wonder whether it is generally recognised that total enclosure need not detract in any way from ease of accessibility, but may actually improve this owing to the layout which can be arranged beneath the shielding. The absence of elaborate chain guarding, example, results in simple and quick adjustment, and such an item alone can

more than compensate for the short time required to remove and refit side-shields. The following is an extract from a Road Test report published in The Motor Cycle of May 4th, 1933, dealing with the Cruiser: 'General maintenance is probably simpler, if anything, than on a more normal machine, for removal of the bonnets is the work of two minutes, and once these have been removed everything is laid bare, there being no additional chain guards. The kick-starter crank is immediately detachable, and, apart from that, two knurled nuts and four wing bolts complete the bonnet attachments. Beneath the bonnets the layout is soundly normal, but the primary chain adjustment is greatly simplified by the use of a cam lever. The removal of the rear guard and carrier was carried out in half a minute, for it is held by only four wing bolts.' We submit the above comments feeling that the subject of enclosure is becoming of considerable importance. After four years' experience with production of machines featuring total closure of all working parts, we are convinced that the type is certain to become increasingly popular.

Eric A Barnett, Director, Francis and Barnett, Ltd."

"I HAVE RIDDEN motor cycles for many years and always doubted the desirability of joining a club. However, last June I was persuaded to ride as a visitor in the North Derbyshire MC's Night Trial, and that one example of a club event caused me to apply immediately for membership. I was accepted, and since then have taken an active part in club life. I can say quite definitely that I have never enjoyed Sundays awheel so much as during the past five months. The chief point I wish to make is this: once you become a member (sporting or non-sporting) of a club and take an active part in club life, it 'gets' you as motor cycling alone or in pairs never will. The camaraderie is amazing. Also club events take one into interesting and new country and to places and events which would not normally be visited. The evenings and weekly club nights are spent socially with singsongs, dances, games, visits to local works and social visits to other clubs in the neighbourhood. Experiences. troubles, and hints and tips are exchanged and discussed. and help is volunteered for difficult jobs which could not be tackled alone.

Bryan D Horan, Chesterfield."

"I READ SOME TIME AGO of ammonia being used to drive an internal combustion engine. The article gave no technical details, other than that the running costs would be more than halved, and I wonder if any of your readers were better in formed on this interesting topic. The adoption of such an unorthodox fuel would presumably be attended with many snags, a few of which are easy to foresee. In the first place, the storing of the ammonia and redistribution. Secondly, the effect of the products of combustion (oxides of nitrogen) on any iron components, lubricating oil, etc, not to mention the sensitive organs of pedestrians. They could, of course, be easily absorbed chemically in the silencers (the products of combustion, that is, not the pedestrians), but the pro cess would be messy. The mixture of ammonia and air is definitely explosive, as I proved for myself. I mixed some strong ammonia and hydrogen peroxide in a tin

'bottle' with a glass tube attached, warmed slightly, and applied a match, expecting just a flame, but the explosion blew the bung out and smashed the glass to fragments. The text-books do not appear to know much about combustion of ammonia in air, so one is left to guess the theory of the thing. A discharge from an induction coil decomposes ammonia into its constituents, nitrogen and hydrogen, which would then presumably form oxides of nitrogen and water vapour respectively, with the oxygen from the air. One big advantage would be the absence of the need to decarbonise, there being no carbon present in the reaction. I await my fate at the hands of such of your many readers who sport an outsize in headgear. All the best to your splendid magazine.

NH3, Leeds, 5."

D St J HEALD regaled readers of the Blue 'Un with tales of 'The Thrills of Winter Riding in a Land Where Men Are Men and Motor Cycles Are (Often) Sleighs'—"...Only once has the cold bothered me. I had been to visit friends some miles away, and found it unusually difficult to start the bus in the evening. I glanced at a thermometer hanging nearby, and found that it was 47° below zero. While following a bush trail on the way home, my rear chain came off. I got out the tools, and sitting on a snowbank, set to work to replace and adjust the chain. Finding gloves too clumsy, I took them off and worked bare-handed. Luckily my hands were bone dry, or the tools would have frozen to them. However, it was bright moonlight and the job didn't take long, but by the time I had finished I hadn't much feeling in my fingers. The last two miles were in the teeth of a breeze from the North Pole, and when I finally arrived home and had time to take stock I found that I had frozen three fingers and my cheeks and nose! If any of you are thinking of coming to Canada, don't be afraid to bring your bus with you. Although the side roads are hardly roads in the English sense of the word, and are impassable in wet weather, there are quite good highways connecting the larger towns, even in the West. But wherever you live, take my word for it, fellows, although summer riding is the greatest sport in the world, there is a thrill in winter riding, a joy in skimming over the icy roads, in the feel of the biting, bracing wind that must be experienced to be appreciated."



When Heald moved to Canada he took with him his Dunelt-Villiers 350 and, with the help of a blacksmith, added a sidecar mounted on a skid rather than a wheel. He noted: "During the four years that have elapsed I have never yet failed to get back home from any trip that I have undertaken."

ADDING-INSULT-TO-INJURY DEPT: "An Italian motor cycle club is to be formed in Addis Ababa, capital of Abyssinia." The Motor Cycle ran this story under the heading 'Settling Down". PS: "£600,000 is to be spent by the Italian government in building hotels and tourist centres in Abyssinia."

THE 1936 MOTOR CYCLE champions of Italy have beed announced as follows: 500cc Serafini (Bianchi); 350cc Millani (Bianchi); 250cc Cavacciniti (Benelli)."

"KING GHAZI OF IRAQ is the enthusiastic rider of a solo Triumph—now his government has ordered a large batch of Triumphs for official use."

"A GREAT-GREAT-GRANDSONOf Macadam, the great road engineer, made a plea for rubber-paved roads in towns at a Macadam centenary dinner in London."

"WORTHING PROPOSES TO form a squad of motor cyclists for use in the event of air raids."

"LAST WEEK I WAS up in the Midlands. The factories have full steam up, with their works' managers sitting on the safety valves! So it seems at any rate. A sales manager has shown me his order book in confidence. It is more an allocation book than an order book! One thing I can tell you without any breach of confidence is that if you want a machine this make by next spring you had better make up your mind soon, and this applies to quite a number of makes. Excuse my harping on this matter, but I want to ram the point well and truly home."

"A NEW SIGN HAS recently made its appearance at merry-go-rounds. Instead of the sign merely pointing in the direction of the road concerned and, in the case of a complicated gyratory system, perhaps causing you unwittingly to go the wrong way and contravene the 'one-way' rules, the tail of the arrow has a loop in it, thus indicating the route that must be taken. This is an excellent scheme. At one complicated junction near my house I have seen dozens of people go wrong as a result of the misleading sign-posting; if any have been had up for this it has been most unfair."

"THE BMCA, I see, believes in hard hitting. Last week Mr SA Davis, the organising secretary, made full use of his visit to Swindon, which has become almost as notorious for its police activity as Meriden, in Warwickshire. At the North Wilts Club's dinner he smote the police hip and thigh for their methods and said that his experience over the last few years is that when a perfectly respectable citizen goes out and buys a motor car or motor cycle he immediately becomes suspect in the eyes of the police. Comparing Wiltshire with Worcestershire, which has a slightly greater population, Mr. Davis pointed out that in 1935 Wiltshire had over double the number of motoring convictions recorded. Of the 8,388 no fewer than 1,422 convictions were secured on driving licence offences and 2,969 in respect of lighting offences. For myself I wonder how many of these offences could very reasonably have been the subject of a caution instead of a summons."

"HOW WOULD YOU LIKE to be a works' tester? Possibly the idea appeals to you, as it did to me when the Editor suggested that I spent a day with the men who test the motor cycles of a big and popular factory. I thought it would be a grand idea. So it was, but I do not want to be a works' tester any more...It was a raw and cold morning that found me riding through the suburbs of a big city. Eventually, I found myself outside a vast building that was (literally) humming with activity (as it has been, so I afterwards learnt, night and day for weeks past). This was to be my headquarters for one day. As I arrived, two well-wrapped-up riders on glisten-ing new models with trade plates came out of the entrance, skilfully weaving their way feet-up round an unloading lorry. Yes, they were two of the testers starting their day's work—or at least so I thought at the time. Upstairs, on the assembly floor, the manager roughly outlined my day's routine. And then I got my first shock. The two lads I had seen leaving on a test run had been at work since 7am! Normally, this early-starting business is not necessary, but two other testers were down

with the 'flu, and this being a rush period it was essential to start early if the production average was to be maintained. When these two lads, Coomber and Graham, had arrived at the works, their first job was to finish off the previous day's work. One or two models required re-testing after adjustments had been made by a staff specially employed for this purpose. Having carried out the tests and carefully checked their own report sheets to see that the work necessary had been carried out, they set the carburetters for slow running, and the models were passed for delivery. The testers were then ready for a fresh day's work and to help me in my new job. All this time the track assembly line had been inexorably creeping on, carrying with it motor cycles in various stages of assembly—just a bare frame at one end, and the finished article, complete with electric lighting, at the other. All down the line were highly skilled men working at top pressure, each doing his particular job, while the track slowly carried the growing machines towards completion. As the machines came off the assembly line they were handed over to a checker whose business it is to see that the specified equipment is fitted; anything missing is noted on a report sheet. Then, the new models were 'run up' on their stands, and finally handed over to the testers. So it was that I eventually found myself following in the wheel-tracks of the cheery Coomber and the quiet Graham, all of us on similar



"Two works testers and the 'tester-for-a-day' leave the factory for a run round the road circuit."

sports 500s. The first mile or so led through back streets, where frequent use had to be made of the gear box. Suddenly my two friends disappeared round a corner. When I followed I saw them already half-way up a long, steepish hill; they were obviously testing the pulling power of their mounts. Then, when the road was reasonably clear of traffic, they bent down first to one side and then to the other and listened for any sound that should not be there. My model took the hill in grand style without a sign of complaint. Cross-roads at the top of the hill called for brakes, and then we ran down

gently to an unrestricted road. On the latter road all three of us opened up, using each gear in turn, but not staying flat-out in any gear for more than a few seconds. I watched the speedometer hand creeping, or, rather, swinging, straight up to 65, and then 70. But the speed was held only just long enough to show that the machines were up to standard. In front of me Coomber and Graham slowed into the side of the road. After a short stop to adjust the front brake cable of one of the models we made our way back to the works. Once again the speedometer showed 70. Down the hill climbed on the outward journey the brakes were tested, and a mental note made of anything requiring attention. Arrived at the works we made notes on the report sheet. The timing gear of one engine seemed to have undue backlash. Another had too much clearance on a tappet, while in the third case the ignition was a trifle retarded. Brakes and chains also required adjustment (I suspect that purposeful slamming up the hill in a high gear had produced the necessary initial slack). However, the work of the testers did not finish with the report of the test run. These two men have spent years with the works as fitters, so with their practised eyes they set about noting all sorts of points which you and I would have missed. A piece of rubber tubing designed to protect the lower end of the front brake cable was missing. A seat lug bolt was showing too much thread; contrariwise, an engine bolt was appearing only half-way through its nut. Crank and timing cases were examined for oil leakages, while the steering heads and hub bearings were checked for play. All these points were duly noted on the report sheet of each machine. In the meantime another batch of machines had arrived downstairs. So while the models that had been tested went upstairs to be readjusted according to the reports, we went off on new mounts for another circuit of the test course, which I now began to appreciate was carefully chosen to find out any faults in the shortest possible distance. When we returned from this second trip we were told that there



"Filling in a report after a test run."

would be a brief interval while the production was changed over to twin-cylinder machines. Naturally, I thought that this was where we took it easy. But not a bit of it. Coomber and Graham went upstairs to give a hand on the assembly of the twins. Half an hour later the buzzers in each department indicated lunch. After lunch the first of the twins arrived, and off we went once more. How tired those men must be of riding round and round, day after day, winter and summer. Why even I towards the close of only one day was getting a trifle sick of it! Yet both those lads seemed cheerful and happy—and to take a really keen interest in their jobs. They often offer ideas for an improvement here and there which are frequently accepted. After all, they of all people should know what is required. At last it was five-thirty and nearing the end of a long day. Although the actual production was slowing up and no more machines were being assembled, the testers' work was by no means finished. One model remained to be re-tested, while there were several machines upstairs that had to be OK-ed. Hats off to the motor cycle testers! These men do not work according to the factory hands' schedule. They get little chance of rest and rarely do they have time for a cigarette except between tests. Their's

is a responsible task, calling for exceptional inside knowledge of assembly coupled with an ability to locate instantly any trouble or fault that might exist. After all, it would seriously hold up production if a certain noise was located in the rocker box, when in actual fact it lay in the timing gear. Fortunately for me the machines I rode and tested did not call for any decision of this kind, and I know that the future owners of the machines whose test sheets bear my signature will be more than proud of their new models—as proud. I hope, as I was to test them."



Globe=trotting Feats that Have Made History:
Amazing Adventures in Different Parts of the
World: Satisfying the Wanderlust with a
Motor Cycle. By "CAMBRIAN"

"HOW WOULD YOU LIKE to start on a world tour by motor cycle with hardly a penny in your pocket? It sounds fantastic, yet quite a number of enthusiasts have performed this apparently impossible feat. In 1929, two American students, Andrew Juvinall and Newton Nesmith, were globe-trotting on a Harley-Davidson outfit. They paid their way by selling post-cards and newspaper articles and giving lectures. When they visited The Motor Cycle offices they had travelled in 13 countries, and yet they had started out practically penniless! One of the latest of these 'pay-your-way-as-you-go' world trips has been made on an Ariel by Lieut ISK Soboleff, an ex-officer of the Russian White Army, who had some amazing adventures. But in between and before these two world tours many other enthusiasts have attempted and brought off the same kind of trip. They have been adventure trips pure and simple. Rather different have been those journeys undertaken in a scientific spirit of exploration or to demonstrate the goanywhere qualities of the British motor cycle. One of the most remarkable journeys of exploration ever achieved by motor cycle was AW Grady's trip right round Australia on a 348cc Douglas in 1924. It was a lone trip and a grim one, through trackless, snakeinfested deserts. This was the kind of 'route-marking' he had to rely upon: 'Follow cattle pads heading due east to Wallamunga Lagoon and cross river between second waterhole and some bogged cattle farther down; then follow creek for one mile and pick up pads and follow for 10 miles due east. Cross creek and make for the right of a big hill where a faint cattle pad can be seen, which leads to Inverary, and make for a green tree on the plain.' One night he found he was completely 'bushed'—ie, lost. He wrote: 'Supper with a jam-tin of water and a piece of sun-baked bread so hard that I had to soak it in my precious water before I could bite it, a mouthful of sickly warm water, then

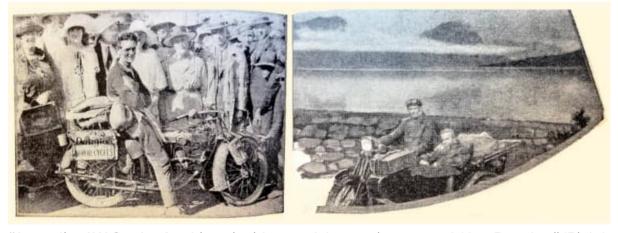
darkness and silence. Everything was hushed and awfully still. I would reflect a tittle faint-heartedly on my journey, solitary and melancholy, in that vast rugged interior. Mile after mile of dreadful riding—it seemed to be maddening, and as I thought of the road behind, its sands, its cracks, its deep and treacherous gorges, a lonesomeness would fall on me like the falling dusk on the land. I would gaze absently at the silent and boundless plain, down the winding rows of scrub and rocks, while Nature hushed the world to sleep, when suddenly the howl of a dingo split the stillness and roused me out of my reverie.' How well we can imagine, from that description, the utter loneliness of the Great Plain! Grady picks up the route again and pushes on with his gallant little Douglas through 600 miles of sand—low-gear work nearly all the way. After five and a half months he is back in his native Fremantle. He writes modestly: 'The great journey is finished, and I am quietly satisfied with the honour of being the first to do it. To the Douglas machine...I cannot give too much honour. Not one spare part was used on the machine, which never failed me, and the tyres never once punctured.' About the same time Lieut-Commander



"North Africa: Commander Frewen and his faithful *Satanella* in the Cardo Cuici, an old Roman city in Algeria." (Right) "Burma: The Cathrick-Cadley BSA sidecar expedition at the Golden Pagoda in Rangoon."

Oswald Frewen, RN, and his sister, Mrs Clare Sheridan, author and sculptress, were making their adventurous journey across Europe to Russia. Their companion was the faithful *Satanella* a 799cc twin-cylinder AJS and sidecar. Frewen tackled all his journeys with an infectious spirit of exuberance. If anything on the outfit broke miles from anywhere he just calmly got on with the job of getting it right; if frontier officials proved obstreperous he quietly argued them out of their bad mood! They travelled across Holland, Germany, and Czechoslovakia, and then bumped their way along the appalling roads of Poland and endured its primitive hotels. His good spirits were irrepressible: 'In Germany the hotels give you no soap, in Western Poland no towels, in Eastern Poland

no bedclothes—or if they do so by request you cannot use them. I suppose in Russia there will be no beds. God bless my happy home!' Frewen and his sister had been warned many times before their entry into Russia of the grim fate that would await them. there. Yet they were undaunted, and on July 31st, 1924, they reached the Polish-Russian border. 'Finally the barrier was unlocked and raised with as much ceremony as opening the gates of a fortress, and the Robin Hood of the Red Army guarding the Russian pole likewise raised theirs. Satanella shot across the five vards of, cigarettestrewn no-man's-land, and we halted just inside the last frontier between us and the Pacific Ocean, the first British touring machine to enter Soviet Russia.' Once in the Soviet they had a sinister impression of being shadowed and 'herded'. The Moscow newspapers reported that Lord Churchill, British War Minister, and his sister were passing through Russia on a trip round the world. Actually they meant Mr Churchill, who is Commander Frewen's cousin, but Frewen never convinced the Russians that he was not Churchill. Steadily they pushed on across Russia. They travelled for two days by steamer down the River Dnieder, then drove across the dusty, level steppes, crossed the picturesque Crimean Mountains, and finally reached the Black Sea. From Sevastopol they went by steamer to Trieste, and then they travelled up through Italy and made a last-moment crossing of the snow-bound Stelvio Pass in October—an adventure in itself. So they reached home again. It was the first of many momentous Satanella trips. Next year Commander Frewen took his much-travelled outfit to Scandinavia and into the Arctic Region. Then later Satanella visited the Saracens and actually carried a sheik on the pillion! In August, 1926, started one of the most spectacular round-the-world hips ever undertaken. It was a tour made by BH Cathrick and JP Castley (who was on The Motor Cycle staff) on two BSA sidecar outfits. When they returned in March, 1928, they had covered 20,500 miles, and the dust of South Africa obscured the many autographs written on the machines in the 25 countries traversed. The two riders had worn out five saddles during their trip! They accomplished the first London-Suez overland trip in history, passing through Spain, Portugal, Southern France, Italy, Czechoslovakia, Austria, Hungary,



"Australia: AW Grady after his epic ride round the continent on a 348cc Douglas." (Right)

"Scandinavia: Commander Frewen with *Satanella* farthest north—at Balsfjord, 200 miles nearer the Pole than the Arctic Circle."

Jugoslavia, the Balkan States, across the Bosphorus to Asia Minor, Central Anatolia, Syria, Palestine, Jerusalem, and so to Suez via the Sinai Desert. In the Balkans they were arrested as suspected spies and detained, but largely through the efforts of the Belgrade Motor Club they were released after some hours. The BSA outfits stood up magnificently to the battering they received over rough unmade tracks in Egypt, India, Malaya, Java, Australia—and finally Southern France, Italy, Czechoslovakia, Austria, Hungary, Jugoslavia, the Balkan States, across the Bosphorus to Asia Minor, Central Anatolia, Syria, Palestine, Jerusalem, and so to Suez via the Sinai Desert. In the Balkans they were arrested as suspected spies and detained, but largely through the efforts of the Belgrade Motor Club they were released after some hours. The BSA outfits stood up magnificently to the battering they received over rough unmade tracks in Egypt, India, Malaya, Java, Australia and, finally, South Africa. The journey across Australia was an epic in itself. Almost a year later, ST Glanfield and Flight-Sergt SW Sparkes, RAF, set off from London on two almost standard Rudge sidecar outfits. They drove together through France, Germany, Austria and Irak to India, and then parted company. Flight-Sergt Sparkes had to complete the tour within his leave and so he travelled through India to Ceylon, sailed to Australia, and completed the trip via Sydney, San Francisco and New York. Glanfield took the longer route across India, the Malay Straits, Java and Australia. He made the first sidecar crossing of the trackless Australian bush—a wonderful lone effort. After crossing the

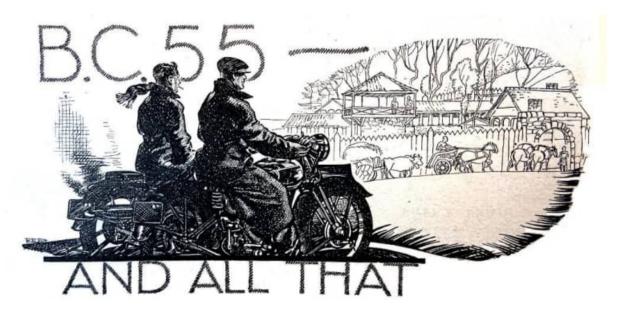


"Egypt: The Malins Oliver expedition when it reached the Great Pyramids." (Right) "Africa: Miss Blenkiron photographed standing beside the Sultan of Zinder during her famous Cape Town-London ride."

United States, via the Arizona Desert, Glanfield sailed from New York back to England. He had completed 17,000 strenuous miles. Soon after the BSA expedition started, Captain Geoffrey Malins, OBE, FRGS, and Captain Oliver, MSM, OBE, left on their

famous world tour. Captain Malins was one of the official cinematographers during the war, and one of the main objects of the trip was to establish an Empire organisation for the handling of the production and distribution of Empire films. Big-twin OEC-Temple outfits were used, the side-cars being so designed as to form small punts or floats for the ferrying of streams and rivers. During an adventure-packed trip, Captain Malins wrote his well- known 'Jottings of a Globe Trotter' for The Motor Cycle. About a year after they started, the two travellers returned to London bronzed and fit, Capt Malins described the machines as admirable for their work despite the appalling conditions overseas. The most amazing motor cycle saga in recent years was completed when, on a typical sultry African afternoon, a travel-stained sidecar outfit throbbed down Cape Town's main street and stopped outside the Town Hall. From the outfit alighted two women, Miss Blenkiron and Miss Wallach, who, nearly eight months before, had left London on their Panther sidecar and trailer. They had endured 14,000 miles of mountains, swamps and jungle trails, trackless wastes, hub-deep sand and scorching heat. Any world traveller will tell you that sand is his worst enemy. So it was that the Sahara Desert—2,000 of sand, think of it!—was Miss Blenkiron's and Miss Wallach's chief obstacle. Mile after mile called for continuous flat-out bottom gear work and almost incessant heaving and pushing. But with the globe-trotter's usual indomitable courage and resource finally the two women won through to their objective—Cape Town. Later Miss Blenkiron completed an epic double trip by returning through Africa to London.\* Just reflect—it is the modern motor cycle that has made possible all these colourful journeys into foreign and sometimes uncharted lands. Each trip has held adventures as strange as any in a medieval traveller's tale. Well might the famous Army recruiting poster be modified to 'Buy a motor cycle and see the world!'."

\*[The story of their adventures, *The Rugged Road*, is a ripping yarn; well worth tracking down.—Ed]



"BILL WAS PORING over the map on the table, and now and then making little crosses at various points. At last he stopped, and deigned to give me an explanation. 'The crosses are the sites of discovered Roman villas,' he said, 'and they lie in a very rough circle round Cirencester and Akeman Street—the Roman road. There's the famous one at Chedworth, and others at Withington, Combend and Dryhill, to the north of Ermine Street, while Painswick, Witcombe, Bisley, Daglinworth and a place called Brown's Hill, which I can't find, lie to the south of it. I vote we go next Sunday and have a look round. The old Romans knew a thing or two, you know, and their villas usually lie on the loveliest and wildest sites. And this district isn't any exception. The villas are all in the highest and most inaccessible parts of the Cotswolds. And can't you see those lovely villas, as they once were, with their urbane patrician owners, and their columns and their courts—all lying in little jewels of English scenery?...Bill's description sounded so good that despite a thick mist I got out the Triumph the following Sunday and started off, with Bill on his Squariel, over the Chilterns, and through Wendover and Thame to Oxford, on a journey that was somehow an enchanted one. For the mist was thin enough for us to bat along at a good speed—far faster than the cars—but sufficiently thick to give a softening, veiled beauty to things. The view from the Chilterns to the great plain just before Wendover, for instance, was covered in a thin white gauze... A village shone indistinctly here and there, and a green meadow stood out in a clearer patch like a jewel. Forgetting about the new by-pass, we paid the toll on the Oxford-Witney road, and after Northleach we turned left along Ermine Street to Cirencester. And soon we saw a road to the right—to Daglinworth. 'That's one of the Roman villa villages,' shouted Bill, and turned down the lane, the wet surface of which was as yellow as a saffron cake, so that our models soon began to resemble canaries. Of course, we lost the way in the mist, and we stopped an old man, who talked, not about Roman villas but—hunting. 'Ay, sir,' he said, pointing to Bill's Squariel, 'I don't know much about them things, but there's not much you can tell me about foxes. I've almost lived with them, and out of season I wouldn't harm a hair of their heads. I used to be a huntsman before my eye went (a fine eye you've got to have for that), and I know where every fox is in the district. It's funny most people think they make their own earths, but they don't often do that—they use a badger earth, or some such hole. Ay, I've seen some queer 'uns in people, too. I've known the parson take a service with his surplice over his hunting kit. And I remember a Master—not in this country—who threatened to order the hounds home it a captured, or bag, fox was used. At the next kill we found that the brush had been tied up with blue ribbon...' And so we rode to Daglinworth, where the yellow-grey stone houses are of the usual Cotswold loveliness—a beauty which, in any other district, would be unique. But our requests to be shown the Roman villa were met with blank looks. 'There's no Roman villa here,' they said, and then, brightening, 'Perhaps you mean the circular dovecote of the nunnery...' Bill produced a tattered guidebook to prove his words, but as they still looked at us in a vague sort of way we decided to make for Cirencester and a very late lunch. After lunch we rode again through the misty countryside, turning right at Chalford

for Bisley, another of our Roman hopes. Soon we reached signposts that warned us, in red letters, that the road was 'unfit for motors', and we rode upwards amid Alpinelooking scenery, often changing into second, and looking down wooded precipices into faery, mist-veiled valleys. And then, on our right, we saw a tiny mountain pool in a grassy valley...I find it impossible to convey the feeling of utter loneliness and seclusion that it gave us, but it is a memory I shall never forget. When we reached Bisley the sun greeted us. 'Roman villa? N-no. They did find some remains of one about a mile from here, but nothing much. There's the Seven Springs in the village though, just down the street...' Just afterwards we suddenly came across a spring 'alcove' in the hillside, where we saw seven springs falling into seven basins. We rode on over Birdlip Hill, with the vast view to the left still shrouded in mist, and then turned right along that edge-of-the-hills road, below which the clouds rolled away for a moment to show Cheltenham with its misty spires beneath us. Soon we turned right again. We found that the Withington villa was apparently the one near by at Chedworth, so we rode through the farmyard of a huge but decayed old manor house, many windows of which were bricked up, and then along a yellow 'trials' road into a wild and beautiful valley. There were horses munching hay in the mist, and later the road ran between dark forests, where myriads of rabbits scuttered across our front wheels. Wild and wilder the scenery became and rougher and rougher the road, till it ended in a round, green amphitheatre, and a dwelling house amid the trees. We got off the models, paid our money in the house-porch, and then walked up to where, amid the broken columns, the remains of the Roman villa lay, forming three sides of a square. We entered a hut the floor of which was a great mosaic depicting the seasons. We looked out of the window down into the green valley, and wondered how often the Roman family must have eaten there, and seen this self-same view, nearly 2,000 years ago. And then we wandered along to the next hut and saw the 'turkish baths' where the Roman patricians would loll and forget the bitter British winter. There was the first hot room, and then a still hotter one, with a broken floor that showed the thin stone 'straddles' on which it stood, and which allowed the hot air to circulate freely beneath. Finally, we walked to the deep plunge bath, the lead drainpipe and plug of which were still in place. Masquerading under a long Roman name at the back was the spring which had once filled that bath, and down on the right wing we discovered the laundry, where the clothes-boiling coppers looked practically the same as the models which the modern housewife uses. 'It's almost unbelievable when you come to think about it,' said Bill. 'A lot of Italians here in this lonely valley.' And so we got into our saddles and rode along the misty lanes, past the Fosse Bridge Hotel, to Northleach. At Oxford we got lost in the mist, but later the fog cleared somewhat, and we reached home quite early after our interesting quest."



"I WAS RETURNING HOME late one stormy night over some of the wildest and loneliest stretches of the Yorkshire Moors when to my disgust the sidecar tyre burst. I inserted a spare tube and was soon ready to continue. Suddenly I heard a noise that made me feel creepy; I do not suffer with nerves, but out there on the moors it was uncanny. There was not a house within miles, yet I heard it again—a pitiful whine followed by a rattle of a chain. The whines suddenly became more frequent and sounded nearer. Switching on the headlight I searched the road ahead, and there I saw a young collie dog, dripping wet, with one hind leg caught in a steel trap that was attached to a length of heavy chain. It did not take long to release the dog and wrap him up comfortably in the sidecar. I then made for home as fast as I could go. That night I took the collie to the local vet. and had the broken leg attended to. The dog soon got better and is now my faithful pal. Advertising and enquiries failed to find the owner, and now with permission of the police, 'Three and a Bit', as I call him, is my own, and a more perfect passenger for the 'chair' would be hard to find. He is always game for a good blind on the open road, or a romp over the moors. RI"

## "Torrens" Reviews Some of the Outstanding Machines That Have Carried Him Through the Year

"TWELVE MONTHS WITH NO PUNCTURES, mighty little trouble, and rather over than under my usual 15,000 miles. Yes, it has been a good but not very varied year. There have been few thrilling newcomers to try. Of course, the 1,000cc Ariel was new, but I had covered several hundred miles on a pre-production sidecar outfit at the back end of last year. Even the thrilling few miles on the TT Norton did not form an entirely new experience, because I have ridden a whole covey of TT Norton in the past. The 500cc BMW, too, is more a development than an entirely fresh conception in design. As usual, my article covering the year that has passed will not discuss each and every machine I have ridden. Were I to deal with them all it would be impossible to give an adequate impression of each. Instead I will concentrate upon a few and endeavour to give an insight into their characteristics. In miles covered on a single machine the 1,000cc Square Four Ariel tops the bill, but there is little to add to what I have written recently.

The machine provides a new thrill. I know of no motor cycle with the same surge of power. The makers claim 10 to 100mph in top gear. If the maximum of my machine is not one hundred miles an hour, it is as near it as no matter, and on many occasions I have dropped down to little more than 10mph in top. The engine is sweetness itself, the power controllable, and the acceleration, if one uses it to the full, is little short of breath-taking. During the cold spell three weeks ago I had a real job starting the engine. My machine was delivered before the new kick-starter gearing and longer kick-starter crank became available. These have now been fitted, and I am using a lighter-grade oil. The result is that I no longer have any difficulty in starting up, in spite of the light-alloy connecting rods and the many plain bearings in the engine. As readers know, I believe in having rear-wheel springing, and consider every motor cycle for road work should be so fitted. Had the 1,000cc Four a spring frame it would be monarch of the road. Even as it is, it is sheer joy. Having discussed a star British machine, I think my next subject should be the ace of German productions, the 500cc ohv BMW. In many ways, this and the Ariel are comparable.

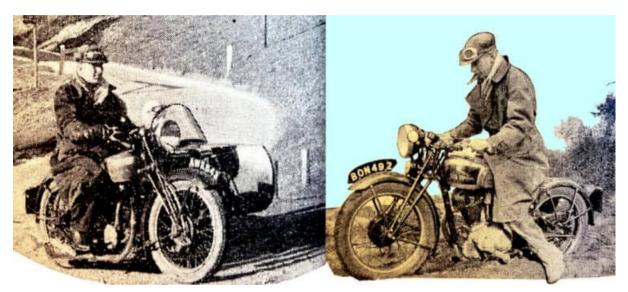


"Torrens descending Washgate, one of the best-known Peak District hills, on his 1,000cc Ariel." (Right) "Ambleside (AJW) and Torrens (Vincent-HRD) on the steepest part of Beggars' Roost."

Both are notable for the exceptional neatness of their power units and both are outstanding as regards their smooth torque. The BMW, of course, employs unit-construction and shaft drive, while the Ariel has a short primary chain in an oil-bath case. The feature that struck me most about the BMW was the marked improvement in its steering and road holding as compared with its predecessors. I defy anyone in normal running to detect that the engine is mounted transversely in the frame. There is not an atom of funny business on bends, and the only time one can tell that the engine is of the transverse variety is when it is ticking over. I am not, of course, writing of TT. speeds, but only of bends taken at 65 and 70mph. The engine was lively and the steering

on the straight steady to a degree that is exceptional. An interesting point was the very English riding position that has been adopted on this new model. About the only criticism I have was that the foot gear change was rather of the clash-bang variety and not too positive. The saddle, incidentally, is one worthy of close examination. In combination with the riding position, it gave something of a spring-frame, effect. This particular machine was not in my hands for test, but in order that I might learn something about the best that Germany has to offer. It is a very good best. Needless to state, I covered many more miles on my own Vincent-HRD Comet. Except at a traffic crawl, the Vincent proved as good a steering machine as I have ever handled. It steered to the proverbial hair, and the brakes were equal to the best TT brakes Some may look upon the fitting of twin brakes per wheel as unnecessary, but none, I am sure, can say that he has found brakes that are smoother and more powerful in action. As with many spring-frame jobs, the riding position of the Vincent was not such that I could poise comfortably on the footrests. Consequently, I felt I never had the full benefit of the springing. Other spring-frame machines have given me greater comfort and happier riding. However, because of the spring frame, the machine proved unusually quick at totting up the miles on main-road runs. And the engine, while not especially snappy on acceleration, proved so smooth that one usually felt like keeping up a good speed on the open road. Starting in the case of my particular machine was never up to the standard I had come to associate with Vincents, and the machine required working up to really high speeds. However, I found that automatically I was tucking more miles into each hour than on the general run of good 500s, and the machine always struck me as being as safe a two-wheeler as can be bought, no doubt because of its spring frame, its road-holding and steering and its superlative brakes. Two spring-frame New Imperials have passed through my hands, one a 350 and the other a 500. Both pleased me enormously. This make seems to me to be one of the most improved of all. The latest engines are lively and smooth, and the spring frame works in the way a good spring frame should. All know, I suppose, that the New Imperial has unit construction with a gear-type primary drive, and that the spring frame is available on all models, except the 150, for merely an additional sixty shillings. My sole criticisms of the two very good machines I have tried are that the riding positions were open to improvement, the engines were up to average in mechanical silence and not above it, and the foot gear changes had too long a movement. Over the years, I have driven many small-capacity sidecar outfits, including 250cc. two-strokes and 293cc four-strokes. The smallest I have handled recently has been the 350cc Panther outfit. My trip with this machine was over the course used for the old Surbiton Club's inter-club team trials with a couple of steeper hills thrown in. The reason for the choice of route was the fact that in one of the trials in question I was using a 1,000cc Blackburne-engined outfit, making, incidentally, my first appearance in a trial. The question was how the modem ohy 350 would compare with the old-time and much heavier 1,000 c.c. side-valve outfit. The facts are that the modern machine was quicker up the hills and just about as quick on the level.

Of course, the top gear was much lower, but were I faced with the task of sidecarring as economically as possible and yet wanted to roam the whole country, there is no question about it: my choice would be a 350cc sidecar outfit. Not nearly enough has been made of the capabilities of such a machine, which is one I am certain would suit many thousands. Naturally, if the frame and forks of a 350 are designed for solo work and one uses the machine sidecar, one should not go berserk on bends and corners. Really, a fair amount of lateral bearing surface is desirable in the front forks of a machine used with a sidecar, but there is probably no modern 350 that will not give first-class service in sidecar



"Putting a 350cc Panther and sidecar through its paces." (Right) "An experimental spring-frame New Imperial embedded in a patch of colonial going."

form, assuming reasonable handling. The Panther formed a 'star' little outfit. Once again I have driven a vertical-twin Triumph and sidecar This type is off the market at the moment, although I feel sure we shall hear more of it because it is much too good a proposition to be discarded. The machine itself was a bit hefty, and in heavy sidecar form required a certain amount of manhandling, but the way it pobbled along was a delight. Here one had flexibility and easy starting coupled with a really useful performance. The engine balance could have been improved—the machine was rather 'pins-and-needley'. Finally, a few words about still another spring-frame machine—the TT Norton. The distance I covered was only sufficient to give me the 'feel' of the machine and to try the brakes, acceleration, riding position, and, to a lesser degree, the steering and road-holding. From what I learnt of the handling I would just about stake my reputation on the fact that in this respect the spring-frame racing Norton is equal to anything on two wheels. In the saddle or, rather, on the mudguard pad, one had a feeling of complete mastery. At my speeds there was no hopping and leaping—merely the feeling of cleaving one's path through the air. The spring frame has made a world of difference. Of course the brakes were superb, and so was the gear change. The riding position naturally was designed for mudguard-pad riding, not for riding poised over the

saddle. When over the pad I found the position magnificent, every control coming exactly where one wanted it, and the whole effect being that the rider felt at one with the machine. If only all manufacturers managed to get their ordinary riding positions half as good there would be little to grumble about in this connection. And remember: that single riding position suits all the Norton racing men in spite of their varying stature. The straight-through exhaust pipe had its megaphone at the end. Consequently, I was able to sample the way additional horses suddenly sweep into action as the engine revs reach a certain number. The machine all of a sudden leaps forward. This to the average man forms a completely new experience; it is almost uncanny. Two other points impressed me: first, the 1936 racing Norton are really tractable; secondly, the engines are exceptionally well balanced. And so I will end."

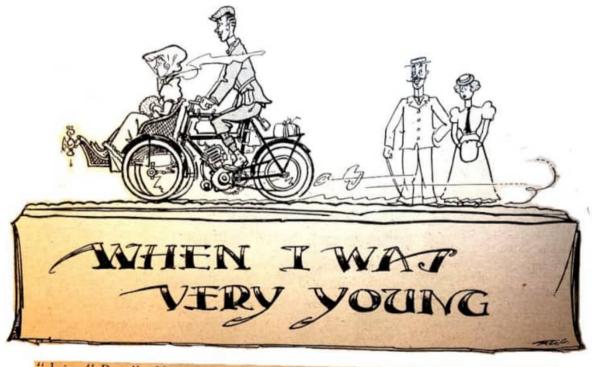


"The best that Germany produces—the 500cc overhead-valve BMW."

"I READ Ambleside's article on ice-riding in a reminiscent mood. I'm lucky nowadays to live in an area where none of the proverbial winter terrors (fog, snow, ice and floods) is at all common, or, indeed, ever prolonged. But for two patches of my chequered career I have had to wrestle long and mightily with all four, even on local jaunts. Four words in Ambleside's article might well have been printed in capitals—'grit by the roadside'. On one famous occasion during a spot of war leave I foolishly elected to ride from Birmingham to Falmouth in mid-winter over quite deep snow—a risky proceeding with only seven days at my disposal. Sillier still, when I got to Pyecombe Hill I selected the hilly route over Dartmoor via Moreton Hampstead. I did not mind pushing the machine bodily over or through sundry deep drifts, but I had awful trouble to climb some of the one-in-fives on rather a dud bus with a smooth rear tyre, especially where morning sun had thawed the southern slopes, which had subsequently frozen hard. After numerous spills and wheelspins I discovered the trick of riding in the gutter, and for the rest of the trip experienced no serious trouble except with the deeper drifts. The tip is valuable on

the level where the road has not been modernised and concreted or tarmac-ed to the very kerb; but on hills it is often essential in order to get up at all. "—Ixion

"VARIOUS READERS ARE CHIPPING my colleague Torrens for being a sort of petrol Don Juan in that he loses his heart to a machine, but nevertheless changes to another make. That is the inevitable duty of every motoring journalist. Many of us would often have been faithful to one make or even to one machine for years at a time; but how, then, could we amass that comprehensive experience which is a fundamental element in knowledge? Personally, I never regard such enforced changes as a genuine hardship, for if one often hates parting with the old bus, loss is tempered by the excitement of making acquaintance with the new one. Oddly enough—I don't know whether Torrens will agree— my main heartaches have centred over selling good two-strokes. A first-class two-stroke, when well run in, develops a silky passion for hard work which is very precious to its owner; I especially recall one Scott which never gave me a mite of anxiety, and was running better when I sold it after 20,000 miles than it had ever run before. I recall one baby two-stroke which ripened in the same miraculous fashion; but shameful to relate, I cannot now recall its make!"—Ixion

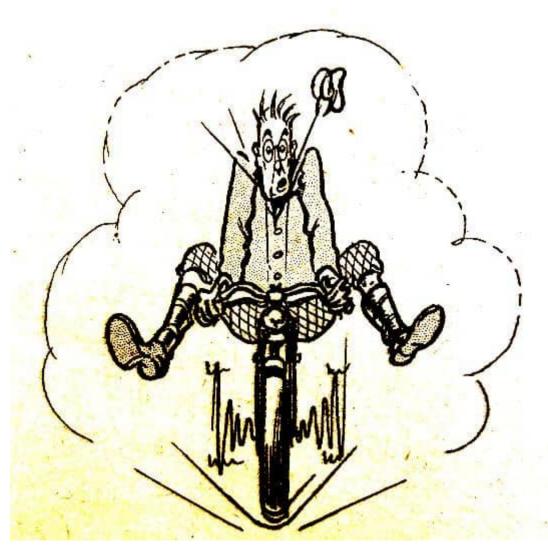


"Ixion" Recalls How an Ancient Motor Shattered a Budding Romance:

A Christmas Story of Thirty=four Years Ago

"THIRTY-FOUR YEARS AGO found me impecunious, amorous, overworked for most of the year, resident in the far West, and passionately enamoured of motor cycling, although a little disgruntled by all the machines which I had hitherto owned or driven. My local roads were exceptionally hilly, and variable gears had not yet been invented. I served my apprenticeship on motor cycles ranging from the 11/3hp Clement-Garrard to

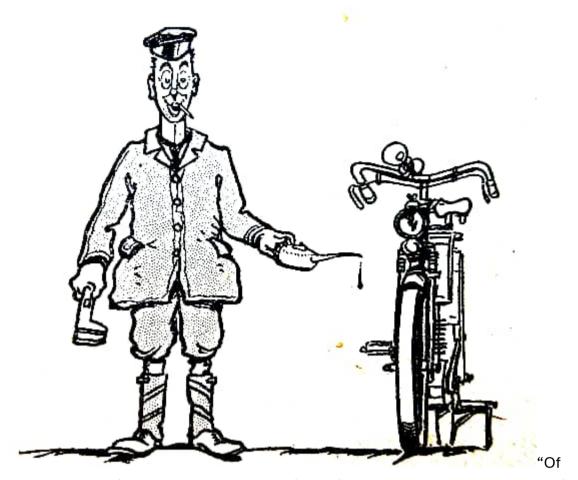
such leviathan monsters as the 2hp Werner, 2¾hp Ormonde, and various machines with Belgian engines. On dry roads they were fine, and as they weighed next to nothing and were equipped with pedalling gear, you could coax them up really formidable inclines. The procedure had become a routine. You waited until the road was clear; made a furious rush at the hill on full throttle; pedalled like mad as soon as the engine revs dropped; hopped off and ran alongside when the engine showed signs of dying on you; and eventually pushed the last bit, unless some side lane furnished a chance of a second power rush. The main snags were seized free-wheel clutches, which caused the pedals to revolve in a blur resembling a circular saw, so that you hastily removed your shins from potential amputation by perching your feet on the fork crown; and, of course, broken and slipping belts. Wet roads were quite a different proposition. Motor cyclists of to-day have no conception what roads were like thirty-four years ago. A good road after rain presented a central strip, well gritted to provide adhesion for



"...caused the pedals to revolve in a blur resembling a circular saw."

horse hooves, and patchily stained green and brown with horse dung. The sides were rutted and pot-holed, with the pot-holes full of water, drying into very slippery grease.

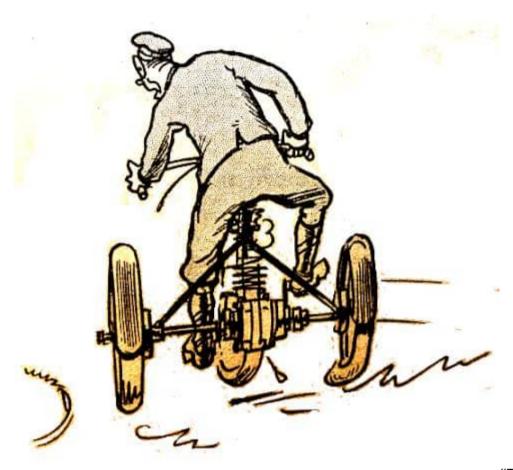
The consistency of the grease varied with the local geology, but in certain parts of the country oolite and limestone made it genuinely difficult to keep vertical on a top-heavy, ill-balanced machine, especially on corners, and doubly so on uphill corners, for it was essential to tackle any uphill corner all out, otherwise the engine promptly conked; but if you speeded on a greasy corner, over you went. And if you went over you bent the pedal on the toss side; and if you bent the pedal you could not climb any more hills until you had effected repairs. Of course, you carried a huge wrench for straightening the pedal crank, plus a paraffin squirt for unseizing the free-wheel; but even then a heavy fall usually snapped off the end of the pedal spindle. So during 1901 and 1902 I experimented with tricycles of the Ariel and De Dion type—with two wheels astern and the engine under the saddle. These experiments were not a success. The trike weighed so much that it was a bad hill climber. One couldn't hop off and run along-side up a hill when the engine flagged, for the back wheels occupied the patch of road on which you wanted to trot. The sole assets of these tricycles were that they did not skid, and that their gear drive (unlike the twisted raw-hide belts on the solos) gave no trouble, although it made a shocking noise. Thus in the late autumn my face broadened into one gigantic beam when I came across the first convertible tri-car. It was a 2%hp (nominal) Excelsion with an MMC engine, primarily designed as a bicycle. However, by removing the front wheel and inserting a hub spindle coupled to the Ackerman steering of the detachable forecar, and bolting a single fist-like clip to the base of the bicycle frame, you converted it into a tri-car for two. Note its attractions: You could take a fairy, and you could talk to



course, you carried a huge wrench for straightening the pedal crank, plus a paraffin squirt for unseizing the free-wheel."

your fairy, for her ear was handy to your lips if you stooped forward, whereas if the fairy was in a trailer astern she got all the dust, all the smell, could not talk to you, and occasionally disappeared completely if the trailer rod snapped. This tri-car weighed very little more than a motor cycle, and if the engine faded on a hilly you could hop off and run alongside. I decided that the Excelsior forecar was the goods, and I invested in one. The conversion took about half an hour. You put a box under the engine and dropped out the front wheel. You then coupled up the forecar steering and the single frame clip, and there you were! Pride received two very heavy falls in my first week with it. Dolled up in a new dove-grey suiting with a refined pin stripe, I rode it nonchalantly along the local boulevard, and caused a sensation. The Saturday evening crowd was stunned into silent adoration, for there was not another motor cycle within 50 miles. Enjoying this, I turned back and did it all over again. This time the crowd began to shout. I thought they were cheering until a very bad smell reached my nostrils and my chin suddenly became very hot. Peering down to diagnose the trouble, I found that the dottle out of my pipe had dropped into my breast pocket, and fanned by the wind, my jacket was in flames! The next Saturday I repeated the demonstration, but minus pipe. As I descended the slight hill at the end of the promenade the Excelsior suddenly took charge and became unsteerable. I fought it desperately, but in vain. We charged on to

the pavement as the crowd scattered, and fetched up with an awful wop against some ornamental iron palings. On investigation, I found that the single fist-like joint attaching the forecar to the bicycle frame had twisted round on the frame tube, so assumed an angle of about 45° to the machine! This defect of design was remedied by making a new clip, which encircled not only the front down tube, but also the saddle tube. The forecar could no longer twist; it might have broken the frame, but, mercifully, it never did. The machine having now been tuned up and run in, I



"Their sole

assets were that they did not skid...and their gear drive gave no trouble."

decided to take it down to South Devon to spend the Christmas of 1902 with my fiancée, a damsel named Hilda. She promptly became the envy of all the South Devon maidens, as her airs and graces aboard the Excelsior were positively insufferable to other girls, although most gratifying to me, as I ascribed them to pride over my selection of her from other possible shes (or should I rather say 'hers?). The South Devon hills were very trying for the Excelsior, but we soon developed a special technique. With Hilda aboard we rushed the hill, and got as far as possible. 'I did not pedal hard on this preliminary attempt, as I had seen one or two of my pals engaged in 1pa (light pedal assistance), and no man looks his best when sweat is streaming from every pore, his locks are lank and damp his complexion is purpled, his eyes are starting from his head, and his language, if breathless, is sulphuric. Never an Adonis, I had no desire to appear worse in

Hilda's eyes than was necessary. When the Excelsior died on us Hilda dismounted and trotted gracefully upwards, while I turned round, descended, and made a fresh attack. Relieved of Hilda's weight, the Excelsior would go up much farther this time, and, except when close to Hilda, I pedalled like fury. The upper stretches saw me, as per 1902 routine, running alongside, and eventually pushing hard. The hills climbable by these methods were legion, but, of course, we avoided the real terrors such as Porlock. Hilda was sweet during the first day or two of my Christmas holiday, and the machine gave no trouble at all. Fool that I was, I thought I had struck the perfect holiday. Snag No 1 arose through the mudguards being of the 2in cycle variety. After two or three wet days the sun shone, and we motored up to a little inn at Hatherleigh for tea. We had a gorgeous tea—I can still taste mine hostess's quince jam with lashings of clotted cream. After tea we repaired to a gigantic armchair, and Hilda swooned on my knee. She was wearing a new Saxe-blue silk dress, and when she arose to resume the journey she patted her frock and screamed! For some 70 miles the drowned Devon roads had been busy depositing mud and filth on my shoes and Stockings. The new blue skirt had draped itself over these miniature cabbage gardens during our love-making, and the dress was wrecked. I lost my temper when neither apologies nor caresses had any effect on Hilda, and all the way home we never spoke. When I called early next morning at her parent's home the maid said that Miss Hilda was in bed with a headache, and all my dreams of a tender reconciliation were shattered. I spent a couple of lonely days among strangers, tinkering with the engine, while the rain teemed pitilessly down. However, Hilda reappeared on the third day in a melting mood, and, like the fools we men are, I capitulated, and promptly forgot and forgave. This third day was fine for a change. Mentally resolving not to embrace Hilda en route, at least not until I had scraped down my understandings with a hoe, we took the road again. It came on to rain in the later afternoon, and we struck the great grandfather of all hills—I have forgotten where. In spasm No 1 I took Hilda up as far as the engine would chug, and according to routine she got out to walk up the rest, while I descended for spasm No 2. Anon I repassed her, pedalling my soul out, and it augured ill that she did not give me the usual beaming smile and cheery wave as I passed. I did my normal hop-off, run alongside, conk-out, and push. While



"After

tea we repaired to a gigantic armchair..."

pushing I spotted a side road which ran off at a tangent almost dead level; so I pushed along it, turned the bus round, and waited for Hilda. When at last she trudged up to the lane end I hailed her. She came up in dead silence with her lips pursed into a tight, sulky line, climbed silently aboard, and we had a fresh charge at the hill. When again we conked out, she she dismounted without a word and set off wanly up the hilt which still twisted and climbed through the wet mist. Down I went again to repeat spasm No 2. This time the engine would not start. After several ineffectual efforts I crazily decided to start it by gravity. I went right down to the bottom of the hill, about a mile and a half, without extracting one pop from the engine. Reaching the bottom, I laboured mightily in the rain, but all in vain. I got hotter and wetter and crosser as I concentrated on my technical problem, and completely forgot all about poor Hilda, presumably sitting on a wet bank about two miles ahead, in the very queen of all feminine sulks. When I gave up the engine as past praying for Hilda, returned to my mind and, man-like, I reflected that she was a selfish little pig not to have come down to see if I was still alive. Hilda, of course, was fuming over a mental picture of me as a selfish brute for not imagining that she had been kidnapped. Eventually, and the local postman came along in his trap, and I asked him to tell Hilda that the Excelsior was sunk at the foot of the hill, and would she please walk down. About an hour later Hilda appeared, sodden to her very

marrowbones, and shivering with cold. I chartered a trap, and we drove home, getting more sodden and frozen with every yard. Next morning her father's gardener left at my digs a small square parcel containing my ring. Nothing more—not a word. From that day to this I have neither seen nor heard of her. If you read this, Hilda, accept my congratulations. If you had stuck to me you would suffered many far worse days with pre-historic motors than our Excelsior ever inflicted. PS—The exhaust valve had broken."



"A frosted fairyland: After the low-lying mists, Nature produces some of her loveliest silver filigree effects on the countryside. This photograph was taken at Box Hill, a favourite beauty-spot with London riders."

"A VERY HAPPY NEW YEAR to all our readers. Especially to those who, as yet, are motor cyclists only in their dreams, still waiting for Pa to relent, Aunt Sarah to open her pursestrings (we can't, of course, wish the poor old dear dead), a rise in salary or other financial advance. For those who already own and ride, good weather, no trouble, a fat allowance on the old bus in the next swop, immunity from cops and crashes, the right fairy for the perch, leave for the TT, and everything else that can contribute to a really memorable year!"—Ixion

#### And now, some contemporary ads.



#### .. compels Says Mr. VIBERT

SEE THEM OPPOSITE OLYMPIA "NOT THE LEAST pleasing feature of my A.J.W. is its sporting lines and appearance, for the machine compels admiration from novice and seasoned rider alike. Handling is superb, and whether the going is rough or smooth, fast or slow, one can ride with confidence and comfort. Not once have I experienced a slide or skid, and on one occasion when meeting a particularly vicious pothole at speed, the machine straightened up of her own accord like a true race-bred. I can only add that for power and flexibility, roadholding and comfort, appearance and reliability, the A.J.W. is giving me every satisfaction. It is a pleasure to own."

DO NOT FAIL to visit the A.J.W. display at 11 and 67 Hammersmith Road and inspect the new 1937 modelsthe world's greatest value in

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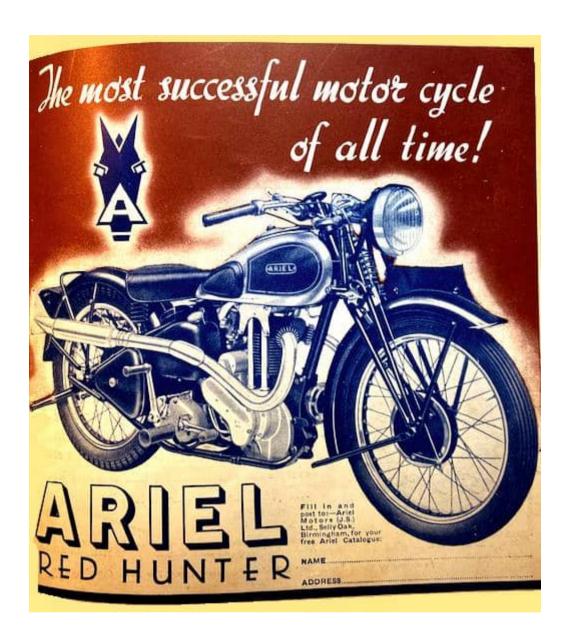
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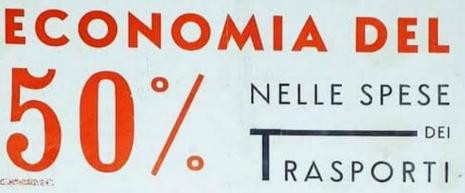
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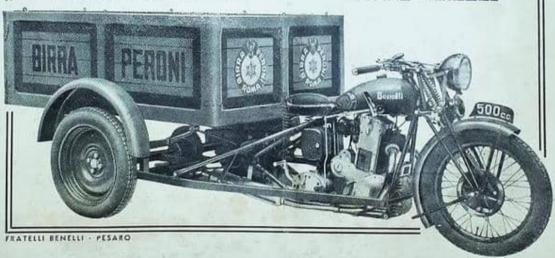


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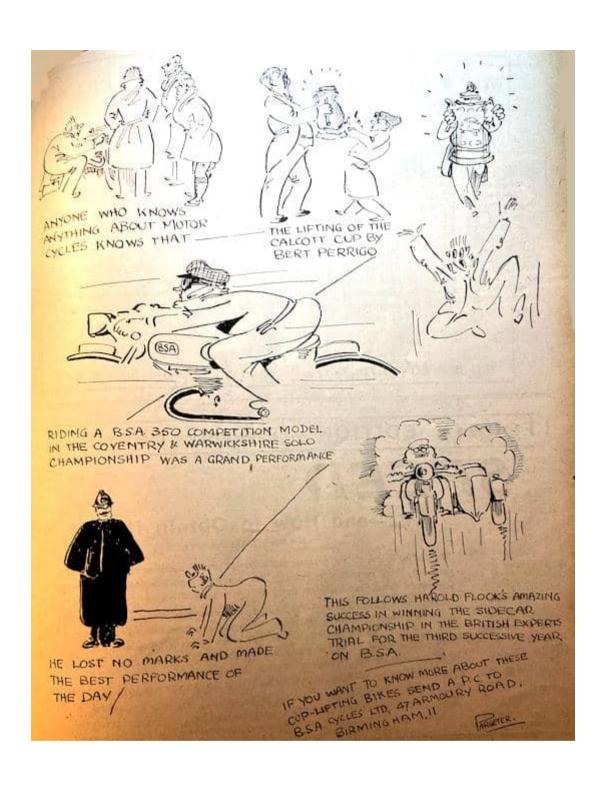
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Nov. 15th, 1936.

A.E. Butler, Enq., Fort Dunlep, Birmingham. series T.A.

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my appreciation of the DUNIOF tyres and Saddle which you supplied for my recent trips abroad during which I broke four Worlds Hecords, including the flying mile at 163-82 mph. I have had absolute satisfaction with DUNIOF, and although during my various trials and practice I have covered a three figure mileage at over 25 miles a minute, the tyres have given absolutely no trouble.

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Again thanking you for your invaluable assistance and repeating my opinion that DUNLOF is the first Insurance in high speed motorcycling.

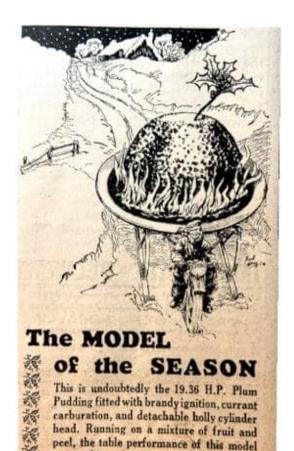
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Yours sincerely,

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Curtain Core and Story Cody story and draw of Cody's State.

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is something to marvel at ! Unfortunately

we have not been able to arrange a display

of this model in our Showrooms. You have

ALL THE BEST

Everyone at Godfrey's wishes every motor cyclist a really Happy Christmas and "all the best" for 1937.

Incidentally, although we are feeling fearfully festive, we would remind you that the new licensing period starts in a week's time and our tame weather prophet promises perfect motor-cycling weather in January and February! Come along to one of our Depots right after Christmas. You can see ALL THE BEST MAKES and we have had 26 years' experience of helping people choose the right one.

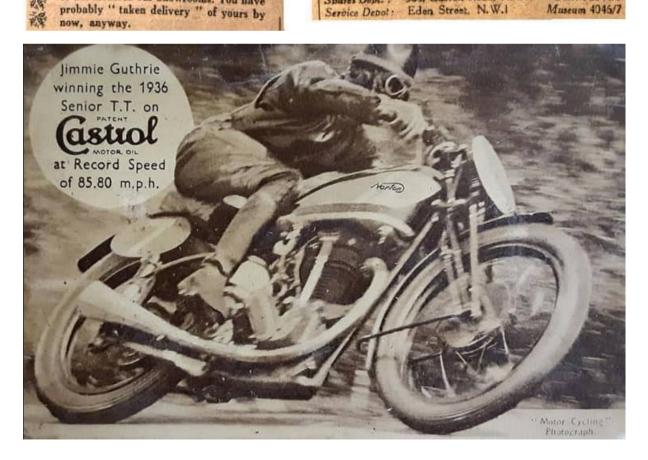
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AN INVITATION is extended to motor cyclists to visit our Works and test for themselves the claims we make for our machines.

Realizing that motor cyclists can usually only call during the weekends, we have arranged for demonstrations to be available on Saturday afternoons and Sunday mornings, except at holiday times.



C. J. Williams "takes off" at Ballig Bridge.

This remarkable photograph, published by the courtesy of "Motor Cycling," clearly demonstrates the remarkable shock absorbing powers of the Vincent H.R.D. spring frame. Have you ever seen another photograph of any rider taking this famous jump in the Tourist Trophy Race, seated on the saddle?

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# Christmas

will never be a thing of the past because most people like to think of the "present"! That's possibly why many a pillion-girl has been jolted in Summer and jilted at Christmas. It's so difficult to get the "ready" in order to be ready for Christmas!

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There is a definite shortage of new models, but Laytons (who are probably the largest stockists in the country) can give you

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they are busy preparing their New Year revolution! Laytons, however, prefer good old Britain and wish all their customers

#### a happy New Year

and advise all motor-cyclists to make a New Year Resolution to come to Laytons and get a thrilling new model on

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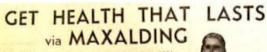
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The following testimonial was published in 1921

"Dear Sir. August 24, 1921.

I take pleasure in sending you herewith two of my recent pose photographs—. Your exercises have indeed contributed largely for attaining such proportionate muscular development, and my measurements taken at the date the photos were taken to the compact of the c 16" : Neck, 16";

FIFTEEN YEARS LATER Mr. Silva wrote:
"GREETINGS AND FULL CONTINUED SUCCESS FOR MAXALDING,"
and enclosed the photograph published herewith, showing his superb condition in
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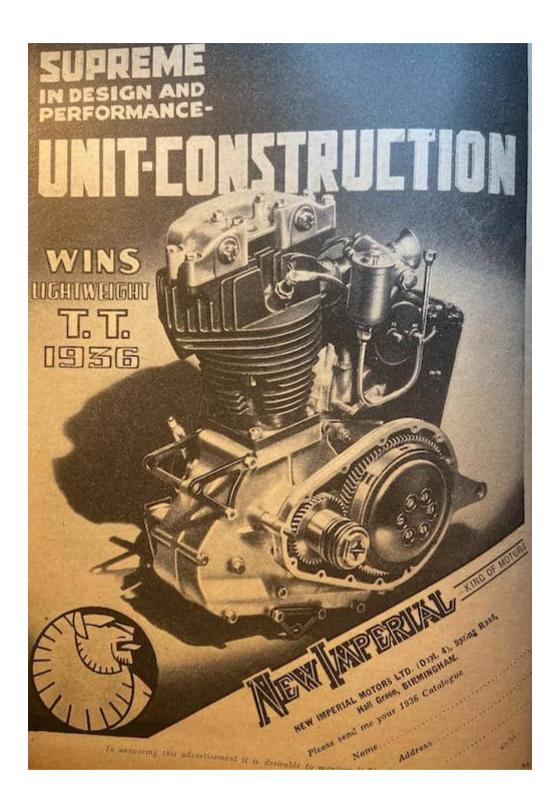
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#### Complete Dynamo Lighting, Electric Horn, etc.

DE LUXE SPECIFICATION INCLUDES DE LUXE SPECIFICATION INCLUDES 2:-callon streamlined chromium saddle tank, Burman heavyweight gear box, Bowden adjustable handlebars. High efficiency engine with totally enclosed and positively lubricated rocker gear, Webb forks with hand adjustment to friction dampers, flared and valanced mudguards, rear guard valanced and hinged to facilitate wheel removal, cam adjustment to gear box and rear wheel ensuring perfect and permanent alignment, etc.

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"I have to-day received my
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"I would like to thank you
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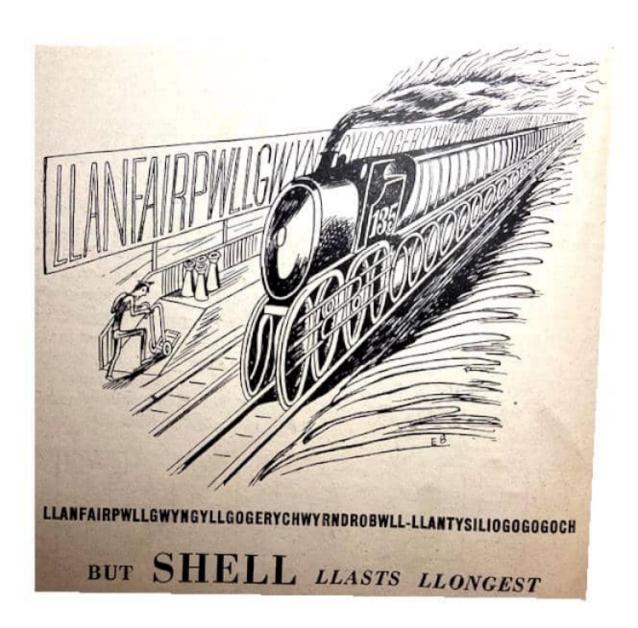
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ed from you. Well, without a money beats me.	
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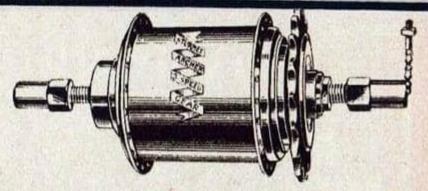


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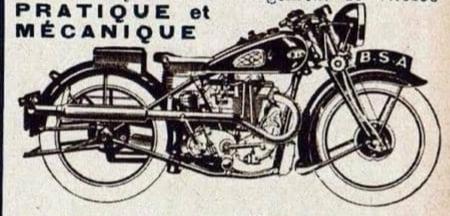
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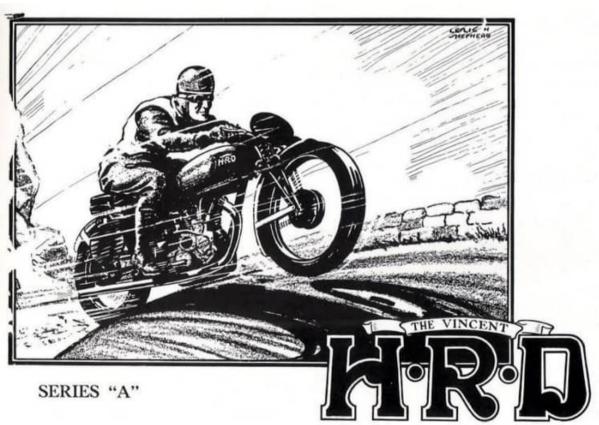


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ROM A SUPER SPORTS 598 c.c. machine seems incredible.

Yet "The Motor Cycle" in their report of the road test of the 1935 "Hundred" Panther, definitely states that this phenomenal consumption was obtained. A few further extracts from their report may be of interest.

"a most imposing machine . . . the Burgess silencing system was so effective . . the mechanical silence of the engine too, was an admirable feature . . . road-holding at all speeds was excellent . . . cornering was excellent, and under greasy conditions the steering was such as to impart every confidence . . . the engine kept perfectly oil-tight . . . under give and take road conditions it (the petrol consumption) worked out at 103.2 m.p.g."

Think what this means in a year's running. Over 100 miles to every gallon. Read the specification of the machine below—remember you can save £15 on the list price of £59.10.0 by ordering from us, you can also obtain a good price for your old machine and last but not least get the finest private deterred terms for the payment of the balance. Send the attached coupon for fuller details.



1935 "100" Panther

Price £44/10 Lighting £59.10 Extra

SPECIFICATION 598 c.c. two-port O.H.V., 1-gallon finned oil sump, 3 gallon tank, coupled brakes, improved timing and valve gear, four speed, positive foot change, capable 80-85 m.p.h. solo, 65-70 m.p.h. sidecar. Don't leave it until to-morrow—

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Sole United Kingdom Panther Distributors :



278, BRIXTON HILL, S.W.2 275, HIGH STREET, ACTON, W.3 Tulse HIII 3211 Accord 0355 "THERE IS ONE NEW YEAR'S resolution at least that will be welcomed by London motorists. We refer to the instructions issued by the Commissioner of Police for the Metropolis to police officers to caution persons who behave carelessly or without regard to their own and other people's safety. The edict applies to all road users, whether motorists, cyclists or pedestrians. Why will the new campaign specially benefit motorists? Because, we suggest, it marks the beginning of the end of that system of petty persecution that has threatened to estrange motorists and those who should be their friends—the police."

"MY CHRISTMAS-JANUARY 1st mail always packs a thrill, because it is sure to contain warm-hearted letters from exiles of whom I have never previously heard. The 1936-7 change over was no exception. For instance, two pals in Western Australia; one has just got married, and the other elects to stay single. The married one can only run to a 1925 350cc side-valve Douglas, which cost him one pound. The bachelor pal has a 1929, 680cc Brough, which cost him £65. (Woman, what sacrifices are not borne for love of thee!) Then another from Sask, which I assume to be short for Saskatchewan. This letter might be summed up as '100° to 40°', which is not a bookmaker's odds, but the range of temperature in the writer's year, varying from 100° in the shade at mid-summer to 40° below zero in midwinter. Add to these extremities of heat and cold 'dirt' roads, gravel tracks, deep sand, ice snow and floods, and you can easily see that only a he-man will invest in a form of transport which resembles a cowboy rodeo in the summer and threatens you with frost-bite all the rest of the year. Yet there are many out there who are passionate students of The Motor Cycle, are as well versed as our staff in the sporting history of the motor cycle and the merits and demerits of this machine and that; and almost without exception they yearn to return to he old country and to watch a TT!"— **Ixion** 

"TRIALS ENTHUSIASTS WILL BE interested in the range of Triumph Tigers in competition form which have just been introduced. The new models are based on the existing Tiger range, and are obtainable with 249cc, 349cc and 497cc ohv engines. Special wide-ratio four-speed gear boxes are fitted, and a variety of ratios is available. With a 17-tooth engine sprocket, ratios of 6.46, 9.36, 14.83, and 19.82 to 1 are obtainable. At the other end of the scale, ratios of 4.78, 6.93, 11.00 and 14.7 to 1 are obtainable with a 23-tooth engine sprocket. Other interesting features of the new competition Tigers include increased mudguard clearance, a sturdy crank case, undershield, and a special front fork spring. The engines are specially tuned, and designed to develop plenty of power at small throttle openings. In this connection particular care has been taken in tuning the carburetter. Either high- or low-compression pistons are available."



"Specially tuned engines, designed to pull at low revolutions, are fitted to the new competition Tigers. This is the 350cc model."

"THE INFORMATION PRINTED in this brochure anent motor cycling is tantalisingly sparse, but it is sufficient to indicate how the Government policy in Germany surpasses that adopted in Britain. For example, number, of motor cycles in use: Germany, 1929, 610,000; 1934, 936,000=plus 53.4%; United Kingdom, 1929, 732,000; 1934, 548,000=minus 25.1%. Germany registered an increase of over 50% in these five years in spite of her general economic condition being so bad that she is still short of certain vital foodstuffs. She accomplished this feat by eliminating vexatious governmental interferences, such as imposing heavy tax and insurance charges on lightweight machines in the British manner. This courageous policy has produced the following results, which can only be regarded as extremely beneficial from a purely nationalist standpoint: (a) It has increased employment by selling 25,000 additional machines in each of the five years. (b) It has enriched Germany by a large number of skilled mechanics. (c) It has rendered German labour much more mobile. (d) It has improved the physical standards of a substantial section of the youthful male population. We might have enjoyed similar benefits had we been blessed with more intelligent and farsighted rulers. Germany is now easily the largest user of motor cycles in the world, although we still retain 60% of the world's export sales."—Ixion.

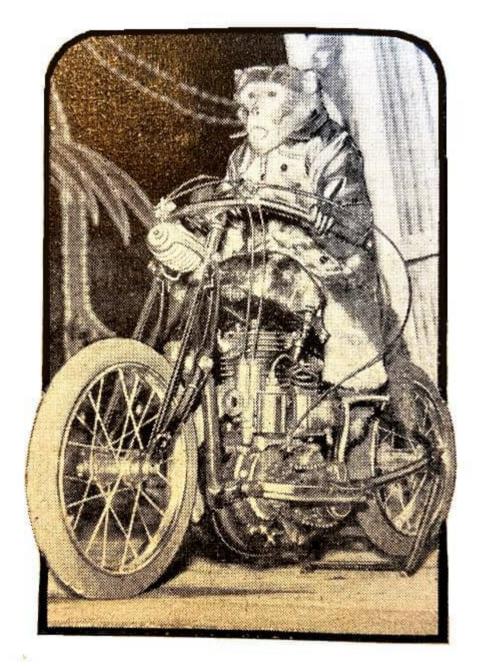
PS IXION REVEALED that he had picked up his first speeding ticket after 40 years and 750,000 miles.

"THE steady increase in the value of British motor cycle exports that was a feature of the first 10 months of 1936 was maintained in November, the figures for which month have just been issued. Machines to the total value of £64,869 were exported, of which

£32,173 was spent by Australia. The total value of machines and parts exported during the 11 months of 1936 amounted to £1,004,135. Once again Australia heads the list as Britain's best buyer, with a total of £240,346. Of the foreign countries, Holland purchased motor cycles to the value of £47,503 during the 11 months."

EIGHT BELGIAN MARQUES were producing about 35,000 motor cycles a year.

"STANLEY WOODS (VELOCETTE) won the Junior race in the South Australian Centenary TT at a speed of 79.9mph. Clem Foster (Norton) won the Senior race at 83mph...a 1,000cc Ariel Four and sidecar driven by R Badger won the sidecar class at 71mph."



"Training counts!

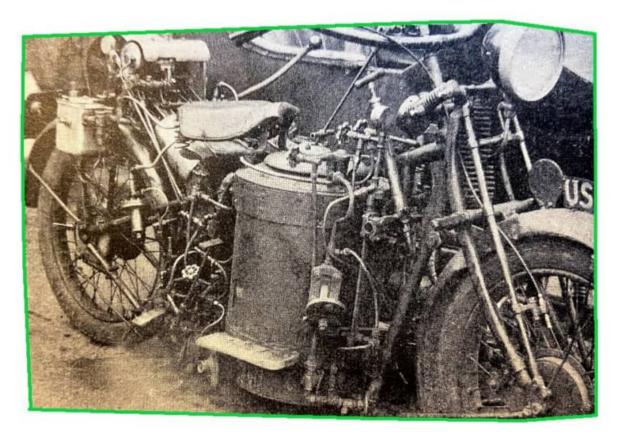
This clever monkey in Tokyo is said to be able to start and stop as well as ride his little two-stroke machine."

"SOME TIME AGO a picture appeared in The Motor Cycle of a steam-driven sidecar outfit built by Mr James Sadler, a Glasgow engineer. It had been designed, after a series of experiments, purely as a hobby. Last week-end it made its bow to London under the auspices of Marble Arch Motor Supplies at their Camberwell showrooms. When the offer was made last Monday to go out on Mr Sadler's outfit I was more than thrilled. Time did not permit an extensive test, so I had to be content with a ran round the houses in South London. Nevertheless, although the machine is only a hobby, and an experiment at that, I left it with feelings of regret that steam has been so neglected as a means of comfortable motoring on three and even two wheels. After a brief description of the general layout, Mr Sadler jumped into the side-car while I found a way into the saddle over a maze of pipes, valves and gauges. Between my legs was the high-pressure tube boiler, with a head of something like 200psi of superheated steam inside it. Behind me, over the rear wheel, was the twin-cylinder double-acting engine, coupled direct to the rear wheel by chain. Slightly behind any left arm was the forward-and-reverse lever, while in the middle, on top of the boiler, was the steam valve, or throttle control. To start, all one had to do was to set the lever to the forward position and then manipulate the steam valve. Quite gently, but with a feeling of extreme power, we surged forward. That feeling of terrific power at 1mph or less was most extraordinary. No juggling with clutch, throttle and brake controls—one just operated the outfit on the steam valve alone. The outfit accelerated rapidly in a delightfully smooth and effortless manner. If one wished to stop, one simply reversed the lever and braked on the engine. Incidentally, I found the outfit quite easy to drive in reverse.



"Quite gently, but with a feeling of extreme power, we surged forward."

As regards actual speed, something like 30mph could be attained with a 4001b pressure in the boiler. The outfit is built up from old motor cycle parts in a more or less orthodox frame. The boiler, carried in the centre of the frame, is of the fired tube type, designed to work at 400psi. It is fired by a controlled paraffin burner, fed from two highpressure cylinders running at nearly 200psi. The pressure in these cylinders is maintained automatically by steam. The steam from the boiler is super-heated by means of a seven-foot spiral pipe running in the flame of the burner. It then passes to the high-pressure twin-cylinder, double-acting engine mounted horizontally on a subframe over the rear wheel. The engine has a bore and stroke of 64×89.5mm, and is of the normal slide valve type. A steam lubricator sees to the lubrication of the pistons. Another essential fitment is the donkey pump that injects water into the boiler. Should the water level in the boiler drop, the burner is automatically shut off. A four-cylinder high-speed miniature steam engine with a bore and stroke of 25.5×25.5mm drives the dynamo mounted on the front of the sidecar chassis. Under the seat of the sidecar are situated the paraffin tank (8gal) and the water tank (10gal). On a long run the consumption amounts to approximately 25mpg for both water and fuel, so that the outfit has a range of roughly 200 miles."—Ambleside

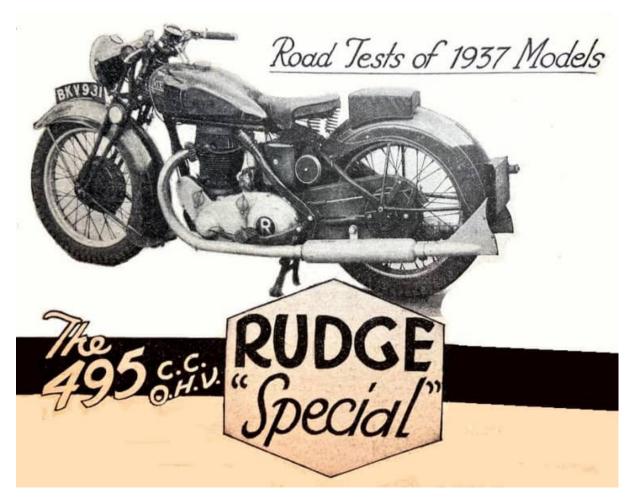


"A close-up of the engine-room of the Sadler steam-driven motor cycle."

"SPECTATORS WILL NOT BE allowed on the course this year; competitors will only be admitted to the grounds on the production of a printed pass.' Thus runs an official statement covering the Sunbeam Championship Trial to be held at the end of this

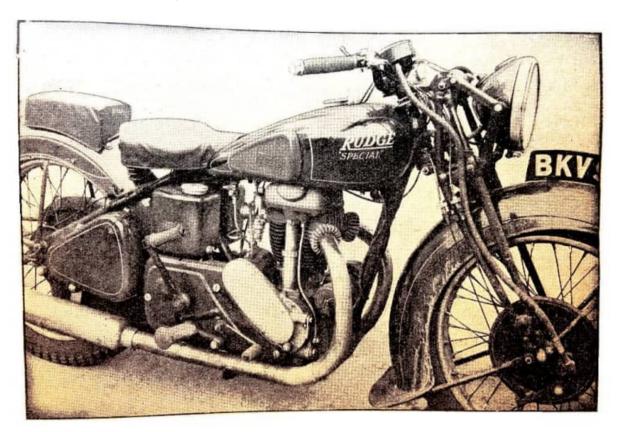
month. The reason for the decision is the amount of litter left on the course—a private one—when the event was held last year. Unfortunately the club concerned is by no means the only one to suffer at the hands of spectators. It is a regrettable fact that much of the prejudice that has arisen over trials is the result of thoughtless actions on the part of spectators. It is merely a few black sheep who cause the trouble. How can their activities be curbed? The Sunbeam Club is adopting a method which is simple in cases where enclosed ground is used, but it means that the orderly as well as the unruly are debarred from watching the sport they love. We suggest that much good might result if organisers pressed into service some of the spectators, making them officials for the day and giving them as their sole job the task of controlling crowds."

"LITTLE BIRD WHISPERED to me last week that the Ministry of Transport is going to construct a giant motor road along the east and south coasts from Bournemouth to Cromer. Alleged motive, to furnish a free run in time of war for motor lorries mounted with anti-aircraft guns. Hope it's true; we could do with a coast road right round these islands, always provided it was pushed inland half a mile or so where the coast is really lovely, and only allowed to hug, the beach where the coast is dull. But I don't believe the little bird; I doubt whether a motor lorry would ever form a satisfactory mounting for a gun which will have to fling a shell up to 25,000ft."—Ixion



"THE RUDGE SPECIAL has many of the good points of its speedier prototypes that have won fame on road and track. It has excellent steering at all speeds, as well as superb brakes and road-holding. It is also exceptionally silent, both mechanically and as regards the exhaust. This year the riding position has been altered slightly, with the result that comfort has been considerably improved. The footrests, pedals and handlebar controls are all well placed. Starting was a comparatively simple matter if the decompressor was used. Otherwise the kick-starter was liable to kick back viciously. The engine balance was of the highest order, vibration being almost completely absent. All the controls worked smoothly and lightly, and in this connection the clutch deserves special mention. On the other hand, while gear changing was easy between second, third and top gear ratios. a silent change from bottom to second or vice versa is difficult on account of the big divergence in the ratios. Bottom gear is sufficiently low to enable trials hills to be tackled successfully, while the remaining ratios are particularly suitable for fast riding over main roads. The engine seems to revel in high revs, yet at the same time it will slog without complaint. The maximum speeds of 25, 49, 63 and 70mph in the various gears were obtained under adverse conditions against a stiffish wind, and while valve bounce would probably preclude the speeds in the three lower gears being improved, there is no doubt, that the top gear reading could have been bettered by two or three mph. On good main roads, clear of traffic, it was possible to maintain a steady 65mph, winch is unusually having regard to the machine's maximum speed. The engine would stand any amount of hard driving, both at high and low speeds. At all speeds the steering was outstandingly good. It is of the light variety without being unduly so, and at high speeds imparts a feeling of great security. The road-holding was also admirable, particularly on fast corners. The Rudge gives the impression of deciding for itself the right amount of bank necessary for each corner. On greasy and loose surfaces there was a minimum of wheel hop—a point for which the Dunlop Universal tyres were no doubt partly responsible. Following the usual practice of the Rudge company, the Special is fitted with coupled brakes. Whether the front brake was used on its own or in conjunction with the rear brake, braking was at all times smooth and certain. Indeed, such confidence was inspired by the brakes that even on skiddy surfaces their application called for no special caution. After a prolonged test the various joints in the upper half of the engine remained free from oil leaks; a certain amount of seepage took place though the case joints. Particular mention should be made of the mudguarding. After many miles of wet roads covered at high cruising speeds, the engine and various other parts remained remarkably free from mud and grit. A 6-volt Miller dynamo, driven by separate chain running in an oil bath, is fitted, and the head lamp provides a narrow beam of unusual length. At all times the Rudge Special gave the thrill of smooth, silky power. On light throttle it was unusually quiet, while even on full throttle there was very little increase of exhaust noise. The oil consumption was negligible, a remark which almost applies to the petrol consumption! At a maintained speed of 40mph the Special's consumption amounted to 91.2mpg. Towards the end of the test there was

evidence of a weak mixture, a fact which undoubtedly- affected the acceleration figures in the various ratios. A special feature of the Rudge is a hand-operated central propstand. It requires very little effort to operate and can be used by the rider when sitting in the saddle. Care must be taken if the machine is ridden off the stand, for the hand lever is liable to come down and trap the rider's left foot. The Rudge Special is a very interesting 'standard' machine, since it possesses numerous sporting traits. The very complete specification includes a mudguard pad and a speedometer. A small but interesting refinement is that all the major nuts on the machine are domed. Altogether the machine forms a very workmanlike and desirable roadster. "



"The riding position has been improved on the new Rudges and a new 3½-gallon tank fitted."

"WE REGRET TO HAVE to say so, but the whole tendency in the trials world is towards what may be described as 'softness'. Except for MCC events there are now hardly any long-distance trials. 'Make them short and snappy' has been the cry. We know that there have been good reasons for this, particularly during the lean years of the recent past, but we have seen with regret that many of those taking part in trials are not motor cyclists in the proper sense of the term—they come to the start by train or in cars and, when the event is over, return in similar fashion. True, trials have developed motor cycles which are none too good for ordinary road work, but there is also a proportion of present-day trials riders who have grown soft; they are not motor cyclists, but jockeys. Some of these will say that they live only for the actual sport of riding through and up

observed sections. The fact is that present-day trials are breeding this type of man—the jockey as opposed to the true enthusiastic motor cyclist, and it is a very great pity."

"STRIKING PROOF OF THE inherent safety of the motor cycle and its value in police work is given by figures quoted in the December issue of The Garda Review, the official organ of the Irish Free State Police Force. The motor cycle patrols were introduced in June 1926, and from that date until October 1936, a total of approximately 1,680,000 miles were covered without a single accident for which the drivers were either directly or indirectly responsible. The patrols were on the road every day from 8am to 12pm, and their duties ranged from chasing speedsters to directing traffic. A record to be proud of!"

"THE FRENCH MILITARY authorities have purchased 1,000 750cc sidecar outfits." That's all *The Motor Cycle* had to say about the order but there's a good chance they were the latest WD model from the Belgian company Gillet Herstal. The Gillet Herstal 720 AB was powered by a 728cc two-stroke engine producing 23hp and driving through a four-speed box with a reverse gear and sidecar-wheel drive; fuel consumption was a dismal 14.2mpg. the 'AB' stood for Armée Belge; there was also an AF model for the French army—France ordered a total of 1,500 720AF solos to be fitted with French-made Bernadet sidecars. Fewer than 800 ABs and AFs were produced; following the German invasion of Belgium they were requisitioned by the Wehrmacht.



These Gillet Herstal combos hail from Belgium. Impressive n'est ce pas?



Gillet Herstal was made in Belgium but used by the Wermacht.

"THE HUNGARIAN GOVERNMENT has introduced legislation designed to stimulate the production of home-produced petrol from coal."

"A NEW PETROL-FROM-COAL plant is to be established at Pencoed, Bridgend (South Wales) by the Low Temperature Carbonisation Company."

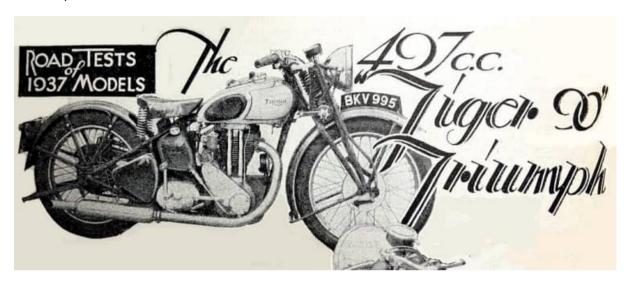
A GERMAN FIRM won a £600,000 contract to build a coal-from-oil plant in Manchuko, a Japanese puppet state in China. .

"THE DUKE OF KENT is to open a new oil-from-coal plant at Bolsover (Derbyshire) on April 14th."

LOW TEMPERATURE CARBONISATION Ltd opened a factory able to produce 12 million gallons of oil and petrol and year from coal. The company claimed to be able to meet 1% of Britain's oil and petrol needs.

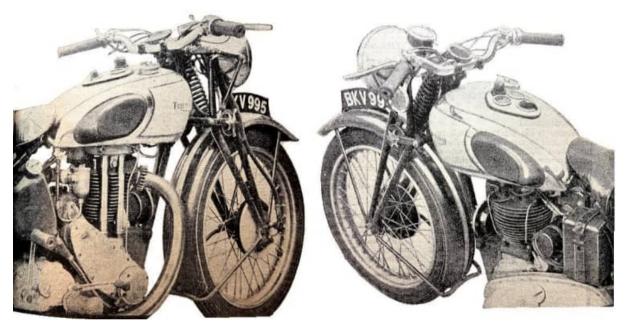
"LAST YEAR, 112,000 tons of petrol were produced from British coal—about 2½ to 3% of the total consumed."

"£60,000 WOULD PROVIDE enough plant to carbonise the whole of the domestic fuel used in this country. From this amount of coal we should derive about 5,000,000 tons of oil and petrol."—Colonel WA Bristow."



"EVEN IN THESE DAYS, a single-cylinder motor cycle with a genuinely high performance wedded to the smoothness and docility of a side-valve is some-thing of a rarity. Such 'Jekyll and Hyde' qualities are a feature of the latest Triumph Tiger 90. Since its introduction last year the Tiger 90 has come to be looked upon—and rightly so—as a specially tuned machine designed for the connoisseur and the hard rider alike. It is unusually swift, and yet at the same time it is extremely flexible and docile. Starting is a comparatively simple and effortless matter, thanks to a suitable kick-starter-engine ratio. Even when started from cold the engine idled perfectly, but there was a slight trace of a weakening of the mixture just off the pilot jet, and this at times caused spitting back and even stalling of the engine. To remedy this, the needle valve of the horizontal-jet Amal carburetter was raised one notch, and the slight richening of the mixture resulted in more even running with the throttle just off the tick-over setting. The riding position is designed for a person of normal height. The footrests, pedals and handlebars are correlated to a nicety, although the handlebars are a trifle wide for long-distance work. They are, however, rubber mounted, and all the controls are exceptionally well finished. Both clutch and front brake levers are of the racing type, and are conveniently placed on the bars. The large but graceful 31/4-gallon petrol tank, with its moulded-rubber kneegrips, does not interfere with the rider's comfort. In fairness to the high-efficiency engine, the Triumph was run on an Ethyl fuel throughout the test. No doubt a mixture of 50-50 petrol-benzole would have given even better results, but at no time did the engine show signs of distress. On the contrary, it seemed to revel in hard work for mile after mile, without a trace of a knock. In fact, on fast main roads it was difficult to refrain from letting the Tiger have its head. The gear ratios are ideal for fast main-read work. All the

ratios are suitably spaced, thus permitting a neat and fast change when required. Some riders might find the foot-change a trifle disconcerting at first. It works in an upward direction for the higher gears and downward for the low. This operation was a little uncertain when changing from third into top gear at speeds in the neighbourhood of 70mph. However, the selector mechanism is very precise and positive in action, and no one should have any difficulty after a few hours' riding. Throughout its range the engine was delightfully smooth and remarkably free from vibration. It was lively without being unpleasantly so. The power output seemed to improve noticeably at speeds of over 50mph in top gear. At high speeds the Tiger gave the feeling of exceptional power without being unduly noisy. However, the exhaust note did change from a burble to a healthy but not obtrusive crackle when the throttle was well open. Because the power is more apparent at high speeds than is usual, the acceleration may not seem



"Total enclosure of the valves and valve gear with positive lubrication Is now standard on the Tiger 9O. The rounded tool box and oil tank make for easy cleaning." (Right) "Control and instrument panel lay-out are clearly shown in this view. The metal leads from the carburetter mixing chamber to prevent awkward bends in the outer cables are an interesting feature."

outstanding. The best acceleration was obtained at speeds of over 50mph, and only began to tail off after 75. Third gear is an extremely useful ratio for fast work, and was a pleasure to use. Circumstances at the time of the test did not permit a two-way run for the timing of the maximum speed in top gear. The speed of 82mph was the mean of four runs against a stiff wind, and them is no doubt that the Tiger, fitted as it was with full electrical equipment, silencers, etc, was good for a genuine 85mph, if not more. At these speeds wind resistance plays a big part, and for this reason the Triumph's performance was all the more creditable, because the rider had only limited

opportunities of 'getting down to it', since no mudguard pad was fitted. While the bottom gear ratio is high enough to permit speeds of 35-40mph, it was.low enough to permit an effortless restart on a 1 in 5 gradient. In spite of a slightly weak mixture at small throttle openings the machine pulled admirably at slow speeds. In top gear it was possible to trickle along at 14mph without a trace of snatch. Naturally, when accelerating from this speed, the engine was liable to pink, a little if you throttle was opened it too quickly. As befits a model with a really sporting performance, the steering and roadholding were beyond reproach. The steering was of the positive type—very firm at low speeds, but becoming lighter higher up the speed range. At all times there was a complete absence of any pitching motion, even when the rear break was fiercely applied. Corners could be taken with a feeling of immense confidence. In fact, the whole machine inspired confidence. All the controls worked smoothly and lightly, calling for a minimum of effort. In this connection mention should be made of the clutch, which, although running in an oil-bath, suffers little from drag, even when the machine has been left overnight. It is exceptionally light, is very positive without being fierce, and requires little movement of the lever for complete withdrawal. Both brakes are of the 'spongy' type, and consequently very pleasant in action. The front brake could have been a little more positive—it was comparatively easy to bring the racing-type lever almost against the twist-grip. Both brakes were very safe in use at high speeds. At one period of the test the roads were ice-bound, but so excellent were the steering and roadholding of the Tiger that any natural nervousness was quickly allayed. Over this type of going the brakes were undoubtedly ideal, and this point should be remembered when considering the braking figure from 30mph. On wet roads the cleanliness of the engine testified to the efficiency of the mudguarding. The engine, too, with its enclosed valve gear, remained completely oil-tight. No signs of seepage at any of the crank case joints were present. To sum up, the Triumph Tiger 90 is a most attractive machine. It has a really first-class performance, coupled with excellent docility and flexibility."



New triumph MD Edward Turner dropped the Val Page-designed 6/1 650cc vertical twin in favour of his own 500cc design. It was initially catalogued as the Model T but became famous as the 5T Speed Twin. The 26hp ohv engine weighed only a few pounds more than the 500cc Tiger 90 one-lunger and slotted neatly into the Tiger 90 frame. Its success hastened the post-war move to vertical twins.

"TWO OR THREE YEARS ago if one wanted a motor cycle which was fast one had to put up with harsh running—that is, unless one bought a four-cylinder job. Inflexibility, poor slow-running, and lack of slogging power were what one paid for snap and speed. A change has been wrought. To-day there is quite a number of hot-stuff singles with Jekyll and Hyde characteristics. You get freedom from pinking, good top gear climbing and tick-tock running with a hyper-sports performance available at command. A year or two back I could name only about a couple of makes that combined the cart-horse with the race-horse. Now, to judge from other models I have ridden, there must be at least half a dozen."

"THE Ministry of Transport avers that only 3% of accidents are due to road defects. The Oxfordshire surveyor avers that 60% of accidents could be prevented by eliminating elementary defects in the roads, and that if we modernised our entire road system, some 80% of the accidents could be averted. By 'elementary defects' he means blind corners and such like. Now the difference between 3 and 60% is fantastic, and off-hand one would judge that the county surveyor, in arms against a national authority, was wrong. But this surveyor has a definite title to respect. During 1936—a period when every other authority was registering an increased number of accidents—he halved the accidents in his area! Moreover, he halved his accidents by altering the road layout at points where experience showed that faulty road layout had produced crashes in the past. So we are driven to ask why the Ministry blames faulty road layout for a mere 3% of

accidents. The answer is that it estimates on the basis of police reports. Now the police are trained to think in terms of people and guilt. They are nosing out criminals all the time. But the surveyor is thinking in terms of in material—skiddy surfaces, blanketed vision, and the like. So when the police report on a smash they are prone to talk of some failure of the human factor, which may or may not amount to criminal recklessness. But the surveyor asks why the human factor failed, and scans the road for a reason. I suspect that the Oxfordshire 60% is far nearer the truth than the Ministry's 3%; and I hope we shall hear more of this dispute."—Ixion

"THERE IS NOTHING NEW in the idea of driving both Wheels of a solo motor cycle, but there is room for some discussion as to the desirability of such a development. As long ago as 1924 The Motor Cycle published a photograph and a short description of a Raleigh machine which had been converted to two-wheel drive by a Yorkshire engineer for experimental purposes. The results were most interesting, for it was stated that the machine would climb anything, and would continue to travel over any surface which was firm enough to support it. Further, on straight roads the stability of the machine was such that it was positively difficult to fall off, even under provocation. Some force, however, was required to turn the machine on a corner, as it had a tendency to keep straight ahead. It is quite possible that this tendency could be eliminated, or at least minimised to such an extent that it becomes innocuous. But even so the question remains, is the additional complication worth while? The average motor cyclist would answer 'No" quite definitely. The competition rider might think rather longer before answering, and if his final answer was 'Yes', there would arise very knotty problem for trials organisers. There can be little doubt that the addition of a front-wheel drive would revolutionise competition work! The idea, however, might be of considerable advantage for military purposes, since the scope of the motor cycle despatch rider would be far wider owing to his ability to progress over surfaces which are now regarded as impossible. The Raleigh machine mentioned had an extra sprocket behind the clutch from which a chain ran to a sprocket under the tank. A second chain led forward to a sprocket on a universally-jointed shaft below the steering head, and a third chain ran from this shaft to the front wheel. Re-member that this was a conversion applied to an existing machine, and might easily be carried out more neatly and simply on an original design. Now comes Mr JE Stormark, of AB Bofors, Bofors, Sweden, with a similar idea. He suggests either chain or shaft drive, the universally-jointed shaft being positioned under the' steering head by suitable radius rods, which differ slightly according to whether parallel link forks or sliding fork members are employed. Mr Stormark has the courage of his opinions, and has converted several machines to his ideas, one of which, a racing sidecar outfit, won the Swedish hill-climbing championship in 1935. He states that machines fitted with his device will continue to travel on snow and ice when others are helpless. His original machine was most ingenious and embodied a universal joint in the front hub and certain features reminiscent of the Ner-a-Car and 0E. Mr. Stormark

specifies as his ideal a narrow-angle V4 with geared cranks parallel to the frame line. The four-speed gear box would be driven directly from the engine, and the final drive to each wheel by shaft. There would be a differential between the two drives, capable of being locked in the event of wheelspin. The rear wheel would be spring suspended, and the front wheel final-drive shaft concealed in pressed-steel forks. Although the underlying idea should have many advantages for difficult going, the machine might be expensive, and possibly noisy since it must include not less than four pairs of bevels and an additional pair of spur gears."



"From the gear box the drive is taken to a universally-jointed shaft under the steering head. The chain is tensioned automatically." (Right) "The Stormark transmission system fitted to the FN, showing the drive from the universal joint to the front wheel."

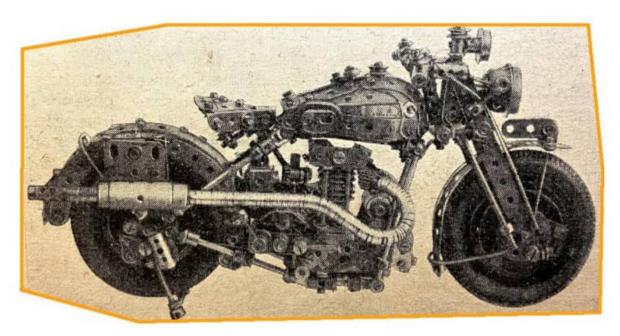
"I NOTICED THAT ONE OR two of your correspondents have related their activities during last summer, so I felt that I should like to mention a run which I consider—well, enthusiastic. It took place last Easter (which was every bit as much 'summer' here as July). During March I had been doing my usual 100-150 miles every week-end (besides evening runs), and when the long Easter week-end came under consideration I thought I would like to do something different. After some thought I remembered I had some friends in Blandford, Dorset. 1 decided to pay them a visit. So the route was planned and 'Bubbles' (my 250cc Red Panther) prepared. I left Glasgow at 6am on Good Friday, and with fair weather arrived at the Shap at 11am where I endeavoured to appease the 'aching void' and had an hour's rest. My next long stop was at Bath, when I had an hour's doze. The last lap—and I reached Blandford (and bed) about 1.30am on Saturday. Approximately 420 miles in 19½ hours on a 250—not no bad! Saturday and Sunday I spent visiting old haunts in the neighbourhood. Now for the return journey. About 8pm on Sunday it began to snow! I had visions of leaving the bike and going home by train. But pride (false or otherwise) put that idea out of my head. So at midnight I left for home. The first 100 miles took me five hours. But by this time it was getting light and progress became better. I reached Lancaster at 3pm on Easter Monday (still snowing), after a thrilling time on the tramlines round Wigan. And so for another last lap. I arrived in

Glasgow, which I saw faintly through sleet, at 9.30pm. Another 400-odd miles, this time in 21½ hours. Now I know why 'Torrens' likes spring frames!

Matthew L Dickie, Glasgow, W2."

"AFTER THE SUCCESSES of spring-frame machines in the last TT, it was assumed that a number of new motor cycles would appear at the Olympia Show with rear-wheel springing either standard or an optional extra. It was not a case of the wish being father to the thought, because hardly had TT week ended than designers were at work laying out spring frames suitable for production purposes. That the Show revealed nothing new is a matter of history, and the fear now is that the whole idea of rear-wheel springing may be shelved for years. There is a very real danger of this: we know of spring frames which were designed months and months ago, and are still in the paper stage, not even a single experimental model having been produced. Manufacturers, in our view, are unwise not to press ahead. It is easy to say that rear-wheel springing is not necessary in view of the smoothness of modern British roads. Admittedly, too, it is difficult to produce a spring-frame that is neat, cheap and efficient. Our experience of British and Continental spring frames is probably unique. We know that rear-wheel springing must come, and that the industry, by its adoption, can add to both safety and the usable performance of their productions. Spring frames should be standardised on all except low-speed machines and those whose sales appeal rests largely upon their low price."

THAT YOU CAN'T FRIGHTEN motor cyclists with a mere war is proved by the fact that recently Ariels received a perfectly normal enquiry for a catalogue, prices, and so on from a private resident in Madrid, who is making a choice of machine. Can it be that the terrors of Franco's bombs are overstated, and that everyday life in Madrid is nearer to normal than some would have us believe?"

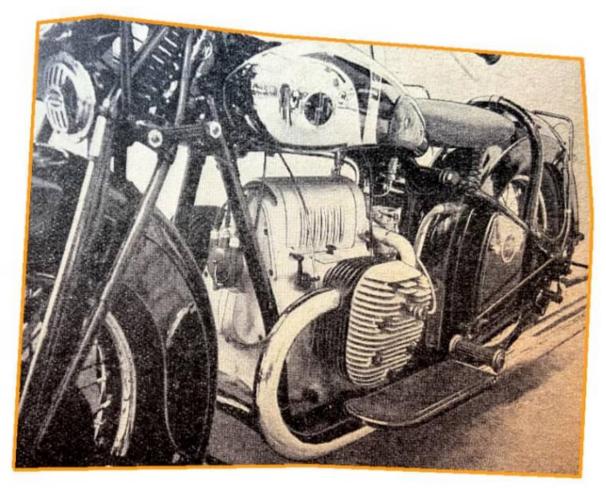


"A star effort: This clever model of a BSA Blue Star motor cycle was constructed from Meccano parts by Mr HH Reynard, who is aged 19."

"IN THE HOUSE OF COMMONS last week Sir Arthur Michael Samuel asked the Home Secretary whether, in response to complaints by a public authority, he was taking steps, with the help of the local police, to abate the nuisance arising from the stream of motor cyclists at motor cycle trials on some of the public roads and lanes in Surrey. Sir John Simon said that he had been in communication with the Chief Constable of Surrey, who informed him that the police paid close attention to these trials, and took appropriate action to deal with any infringements of the law. Sir AM Samuel asked if the Home Secretary was aware that at the present moment in the lanes of Surrey these motor cycle trials were actually imperilling the lives of pedestrians. The Home Secretary said he was sure that the police would have the consideration in mind, but if the matter was one of regulation of traffic he thought it must be under the Road Traffic Act or under the local by-laws, and not under the Act dealing with general offences. Sir AM Samuel then asked if the Home Secretary would get in touch with the proper authorities. Sir John Simon replied that the fact the hon gentleman had asked this question would call attention to it. He had no doubt that the matter was being considered."

"WHILE NO STRIKING DEPARTURES from orthodox design were to be seen at the Brussels Show, there were several interesting Belgian machines on view. In addition, a number of motor cycles well known to British riders, including BSA, Norton, Triumph and Harley-Davidson, were exhibited. FN, probably the most important of the Belgian motor cycle manufacturers, showed a wide range of machines, all of them employing unit construction. Interest focused around the 1,000cc side-valve transverse flat-twin touring machine, which has the final drive by shaft. In engine layout the machine is reminiscent of the German BMW and Zundapp transverse twins. The machine has a four-speed and reverse gear box, with hand change. Another new FN series model, the

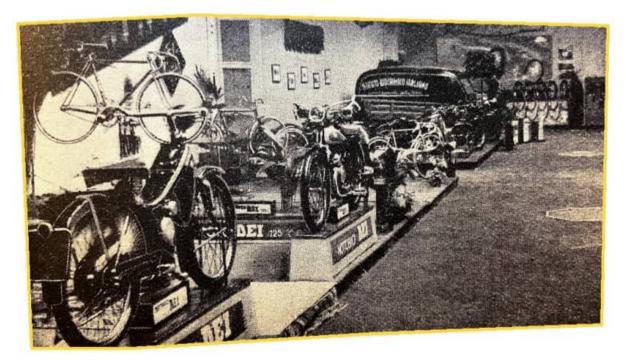
Super-touring Type II, which is available with a 500cc or 600cc side-valve engine, is remarkable for the lavish use of aluminium in its construction. The cylinder itself is of aluminium, with a screwed-in steel liner and a hard bronze plate in the head to provide valve seatings. Detachable cover plates allow the crank chamber or gears to be readily inspected. In addition to a comprehensive range of utility models, Sarolea were showing new 350cc, 500cc and 600cc sporting models. Four speeds are standardised, but the separate engine and gear box construction is retained. On the Ready stand was a range of utility models. One of the two-stroke models has the hand-change lever so arranged as automatically to operate the decompressor when changing gear. Many of the Belgian motor cycles exhibited employed British proprietary engines and gear boxes—JAP, Blackburne, Villiers, and AJS engines were seen, together with Burman and Albion gear boxes. Other British fittings, including Lucas lighting, were also fitted to some models."



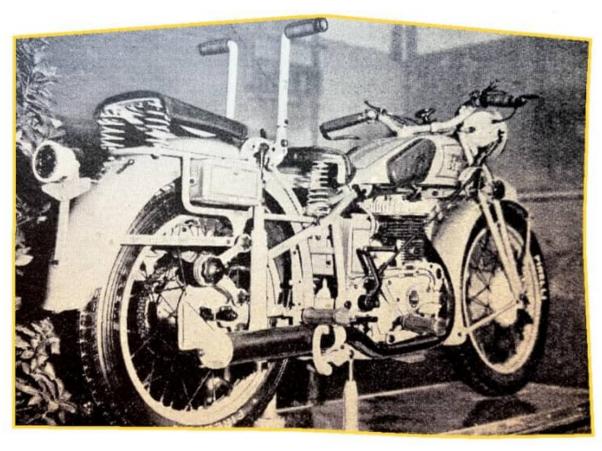
"A close-up of the 1,000cc transverse flat-twin FN, which is very similar in general layout to the German BMW and Zundapp machines. Unit-construction is employed, as on all the FN models."

"ALTHOUGH THERE WERE 140 exhibitors at the recent Milan Show, mostly Italian, it was a British machine—the 1,000cc Ariel Square Four—that provided the pièce de resistance. On the same stand was shown a single-cylinder Astra (a replica of the Ariel),

while several of the Italian machines on view were fitted with British proprietary engines, gearboxes and accessories—JAP, Villiers, Amal and Burman being the firms mainly concerned. The Italian-made Matchless engine (known in Italy as the Mercury) was also shown in various types and sizes. Germany was represented by the BMW and DKW. On the former's stand were single- and twin-cylinder models from 200cc to 600cc, including the latest Model R6. This a super-sports machine with a 600cc horizontallyopposed ohy engine mounted in a tubular frame. It has four speeds, and employs the well-known BMW telescopic front forks. In comparison the DKW exhibit was small, consisting only of 100cc and 300cc two-stroke machines, and a 300cc engine for delivery van work. The only other 'foreign' country represented was Belgium, with examples of the Gillet and FN. Among the Italian machines considerable interest centred around the Dei, which was shown fitted with 250cc and 500cc ohy JAP engines, and with 125cc and 250cc Villiers two-stroke engines. A good example of an Italian sports machine is the CM, which has a 490cc ohv engine with hairpin valve springs and a four-speed gear box. This model has the engine inclined in the frame, but the 244cc and 340cc ohv models and the 498cc side-valve have vertical engines. Spring frames are increasing in popularity in Italy, and an interesting design was to be seen on the Simplex stand. Two springs are employed, and these are housed in telescopic tubes, while their action can be controlled by the rider. Another make which has acquired a spring frame is the Bianchi. Guzzis, surprisingly, show no change for 1937. The Ganna range consists of side-valve, and touring and racing overhead-valve, models. Previously either JAP or Blackburne engines have been employed, but this year they were shown fitted with the maker's own engines. Among the other well-known makes at the show were Gilera, Benelli and MAS, but these have been modified only in minor details."



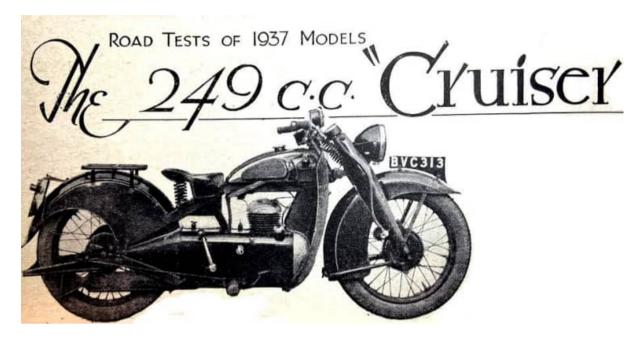
"A section of the motor cycle exhibit at the Milan Show."



"The 498cc Bianchi with spring-frame. Note thge substantial pillion hand-bars."

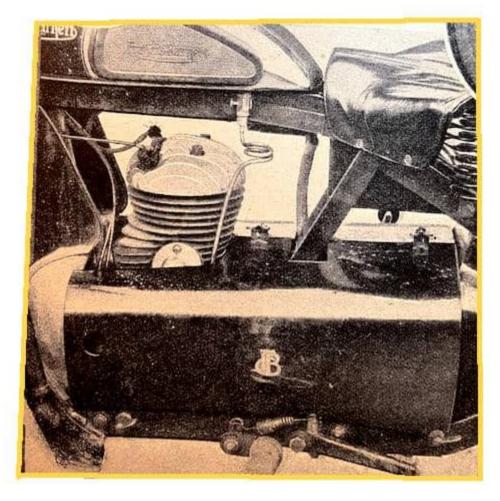
"CARBURETA, my eldest daughter, unpardonably owns a 15th-hand baby car, cost price £8. On January 1st it became legally undrivable, as it had not got a safety-glass windscreen. She made love to our local chief cop, and suggested that if she gummed cellophane over it, it would satisfy the law, but he was adamant. As a new safety-glass screen would cost about a third of what the antique car is worth, she took me forth into the wilds in search of a second-hand safety screen, and introduced me to a new world. This indefatigable damsel had unearthed the addresses of sundry car breakers in the wilds of the Home Counties, where rents are nominal. They buy up any old car, and either sell it as it stands as a going proposition, or if it be past praying for, strip it down, and sell the bits as replacements. Eventually, we floundered through deep mire to a derelict farm, where some 400 decrepit cars stood parked in the mud, and several very dirty youths were busy seckaydeeing them ('CKD' equals 'completely knocked down'). Piles of aged dynamos, head lamps, back axles, chassis springs, gear boxes, magnetos and every conceivable part, all neatly sorted, lay in the mud under tarpaulins. And there Carbureta picked up a piece of Triplex just nicely too large for her windscreen frame. It cost her 7s 6d, but what it will cost her by the time she has had it cut to fit I cannot guess. This expedition has met one of my unanswered questions; I knew what happened to motor bikes when they get past use, but not their bulkier brethren, motor cars. I must have owned some 200 motor cycles in my time, and I haven't been able to trace the ultimate fate of any of 'em, but I can make the shrewd guess that a

considerable number reached the various firms who advertise second-hand motor cycle parts."—Ixion



"GENTLEMANLY' IS PROBABLY THE only adjective that faithfully describes the appearance and the performance of the 249cc G/39 Cruiser Francis-Barnett. It looks a gentleman's motor cycle. There is no flamboyant exhaust system, and not only is everything neatly tucked away, but there is total enclosure and weather protection to a degree that is exceptional. How efficient the shields are can be gathered from the photographs, which were taken immediately after the machine had been used for some of the muddiest going imaginable. To state that no mud can reach the rider's legs would be an exaggeration, because vehicles which overtake or are overtaken are apt to throw mud splashes sideways, even as they often spray those walking along the pavement. Experience proves, however, that the Cruiser really is a machine that can safely be ridden in ordinary clothing; it also brings to light these twin facts: first, that the shields do not drum, and, secondly, that removal of the panels enclosing the engine and gear box is a task occupying little more than seconds. Kick-starting the Villiers engine, which in the case of the G/39 model is of the deflector-piston type, required so little effort that it can truly be said, 'A child can do it.' With the mixture control, which is mounted on the right handlebar, set to 'Rich' the engine almost invariably fired at the third gentle dig at the kick-starter pedal. Incidentally, coil ignition was fitted to the model tested. This form of ignition is standard on, the G/39. The engine showed no tendency to stop once it had started, and there was no spitting back. Good slow running was a notable feature of the machine tested. In traffic blocks the engine idled quietly and effortlessly, and there was never any need for the rider to keep blipping the throttle. With the machine under way there was extremely little four-stroking, even when running light, and because of the exceptionally efficient silencing the little four-stroking that occurred was in no sense of the word objectionable. Outstandingly good road manners are a feature of the machine

as a whole. The clutch of the Albion gear box proved light to operate and absolutely smooth in action. In addition, the gear box was completely silent on all ratios. Gear changing is by hand, and proved simple and straightforward. No special care was needed to effect perfect changes either from a high gear to a lower one or vice versa. More often than not it was desirable to move the machine forward an inch or two in order to engage bottom gear from neutral so that the dog clutches might be in the correct relative positions for engagement—either this or the clutch could be let in again and the operation repeated.



"Removing the

enclosing shields takes little more than seconds. Note the neat prop-stand and the few traces of mud on the side shields."

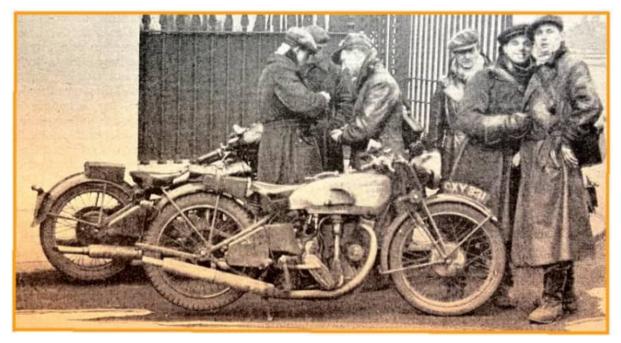
Assuming an ordinary amount of attention to the setting of the mixture control the machine performed effortlessly under all conditions. Flexibility is such that the machine, if desired, can be treated as entirely a top-gear mount. The engine would pull sweetly away even from speeds as low as 10 or 12mph in top gear and accelerate up to just over 50mph. While the engine would slog with almost cart-horse persistency up main road hills, it also would hum along the open road. Often speeds of 45 and 48mph were kept up for mile after mile. The machine is a gentlemanly mount, but there is nothing of the slowcoach about it. In second-gear the engine takes the machine quickly

up to a useful 40mph; by using his gears the rider has an interesting sports-like performance. Both brakes are excellent—powerful, yet absolutely smooth and safe in action. The figure of 39ft from 30mph shows the 'iron' that lies beneath the velvety smoothness. The only possible criticism of the brakes is that the front brake lever involves rather too a stretch to grasp it. The riding position is of the sit-up, touring type, and is uncramped even for a rider of 5ft 11in. Except for the control just mentioned all controls are well placed. A good point in this connection is that an adjuster is provided for the rear brake pedal so that it may be set to suit an individual rider. An unusually large (18in wide) 'stubby' Terry saddle is fitted, while the tyres standardised are of 3.25in section, and therefore need not be pumped up very hard. The engine is smooth throughout its range. An expert might point to a period at a speed of roughly 40mph in top gear, but this is so minute that really it cannot be termed a period. It is unlikely that any but men out to find 'points' would detect it; there are no 'pins-and-needles' anywhere in the speed range. By modern standards the steering is unusually light even for a machine of 249cc. The machine can be ridden feet-up at exceptionally low speeds—it can be ridden almost to a complete standstill. This is an excellent feature so far as traffic riding is concerned. Greater confidence would, however, probably be evoked under gusty, wet conditions if the steering were somewhat heavier. On one occasion, when a 500cc machine of more normal design was being followed, it was noticed that the Francis-Barnett, in spite of the large area the front wheel assembly presents to a side wind, swerved less under the influence of the strong gusts than the machine that was just in front. Nevertheless, the machine could, it is suggested, afford a greater feeling of security under these conditions. Under all normal conditions the steering is of the 'guaranteed to an inch variety', and the cornering excellent. In spite of many miles of city streets traversed under slippery conditions, never once did the machine skid. The Miller head lamp provided a long, narrow beam with a fair degree of side illumination. To sum up: here is a machine that proved so good that it is next to impossible even for a motor cyclist who rides dozens of different motor cycles a year to offer criticism or make suggestions."

"A UTILITY MOTOR CYCLE capable of covering 10,000 miles without calling for a single adjustment is the dream of one of our best known designers, He maintains that this is a feasible proposition to-day. The machine would. be a four-stroke, but on lines radically different from those of the modern motor cycle. He avers that although 'different', the machine could easily be made pleasing to the eye. What checks him is the cost of getting into production and the question whether the demand for such a machine would be adequate. He cannot afford to 'back a loser', and the cost of tooling up in readiness for production would run into thousands of pounds. It is easy to sympathise with all who are faced with decisions affecting the livelihood of workpeople and the pockets of numerous others. Nevertheless, we consider that the sands are running out; that unless manufacturers make a bid for the utility market soon the motor cycle will be looked

upon only as a vehicle of sport. As yet the industry has merely touched the fringe; the number of motor cyclists should be double what it is to-day—it could be if suitable designs were available."

"THE OTHER DAY I gained an insight into the way the United States of America exploit the gruesome in order to prevent road accidents. The means in this instance was an article. It did not just describe accidents, but gave pen pictures of the victims, their injuries, and their actions in the moments immediately following the collisions. 'Gruesome' is certainly one word, and 'nauseating' is another. Much as I dislike the method, I can well believe that in small doses it is effective. All the same, I should hate to see it employed over here."

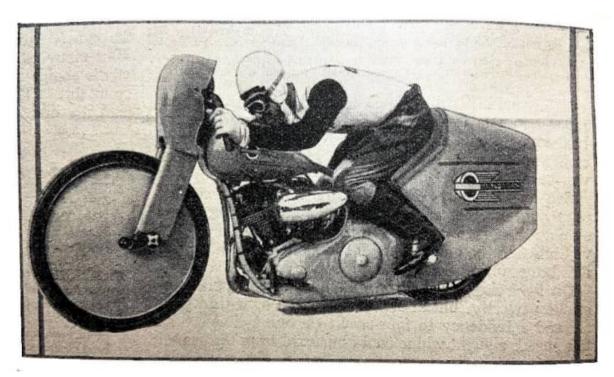


"A club meet in Piccadilly? No, these motor cyclists are Press photographers' runners, whose job it is to collect the exposed plates at events of topical interest and ride post-haste back to Fleet Street for the plates to be developed. In this picture they are seen waiting to take back photographs of the King and Queen."

"THE MINISTRY OF TRANSPORT'S recently published registration figures covering the 'peak' months of July-September 1936 show that of a total of 505,779 motor cycles in use, no fewer than 125,499, or nearly one in four, were sidecar machines. Surely an adequate answer to those who aver that the day of the sidecar is over. The figures also reveal the popularity of the under-250cc machine—an increase of 5,247 over the corresponding period of 1935. And it will probably interest many to know that of the 505,779 motor cycles in use a England, Wales and Scotland, the share of London and its neighbouring counties was 117,559—an interesting fact since it reveals that in spite of the area being so densely populated the motor cycle retains its popularity."

"RECENTLY I spent an evening with a man who has designed a number of well-known models. Our conversation turned to a matter I have never seen discussed in print: the way a model if left unaltered for a long period generally grows steadily worse apparently, the machines produced are exactly like those manufactured, say, a couple of years previously, yet their performance is nothing like so good. We discussed an actual model with which he had been associated. After a while not only did the speed of the latest productions not compare with that of the earlier ones, but their engines were decidedly coarser. Investigation showed that certain of the castings were being supplied by a different concern and the patterns were no longer in accordance with the original design; consequently, the cylinder head shape—to take an example—was not as it should have been. In addition, there was no longer the same care taken by the assemblers in building the engines; they had become so accustomed to the job that they did it automatically. Various jigs and tools were also not so good as they might have been. After a complete investigation and a general overhaul of the supplies and production methods the machines turned out were once again the equal of the first models. I know two makers who have recently carried out investigations on these lines—to the marked benefit of the purchaser."

"RIDING A LARGE STREAMLINED motor cycle, Joe Petrali, the Milwaukee dare-devil, roared over the smooth beach at an average of 136.18mph; a new world's record for two-wheeled bikes.'—American newspaper."..."That well-known rider, Joe Petrali (Harley-Davidson), has been adjudged Champion of America for 1936."



"Here is Joe Petrali, the famous American rider, on the specially tuned and streamlined Harley-Davidson with which he set up a new US maximum speed record of 136.18mph at Daytona Beach." The Harley in question was the newly introduced 988cc Model EL

61, the first ohv poroduction Harley, better known to history as the Knucklehead. Having sorted out teething problems the Milwaukee boys were keen to establish its sporting credentials.

"THE LATEST OFFICIAL registration figures show that there are 2,768,606 mechanically propelled vehicles in use in Great Britain."

"GEORGE PATCHETT, THE English designer of the Czechoslovakian Jawa machine, escaped with bruises in a serious motoring accident near Davos. His wife, who was with him, also escaped with bruises."

"THE MAN WHO WAS responsible for Leeds being the first city to install traffic lights— Mr RL Matthews, Chief Constable—has resigned owing to illness."

"NOT MORE THAN 50% of drivers take the trouble to give properly the signals which the law and prudence both require.'—Letter in a London newspaper."

"ONLY A FRACTION of 1% of United States main roads begin to approach the fundamental requirement of 'automatically correcting the driver's mistakes', says an American magazine."

"THE COLD FACT is that traffic to-day is a combination of an 80mph car in the hands of a 20mph driver struggling to adjust itself to a 30mph road."—Fortune, American magazine."

"MILHOUX AND CHARRIER (FN sc) were forced to abandon an attempt on the 12-hour sidecar record after 20 minutes' lapping at Montlhéry, owing to a broken crank case."



"Wet Bobs: The Press photo agency which issued this picture captioned it as follows: 'A motor cyclist asking his way from the sculler on the flooded towpath at Putney, London, SW, where the Thames has overflowed its banks."

"A CHINESE PROFESSOR, visiting London, criticised the traffic lights as follows: 'We have some street signalling lamps like yours, but they are giving way to the single searchlight, with an arrangement for changing colours.'"

"DER DEUTSCHE AUTOMOBIL-CLUB, the 'RAC of Germany', has established 60 stations where German pedal cyclists may have the rear mudguards of their machines painted with phosphorescent paint free of charge."

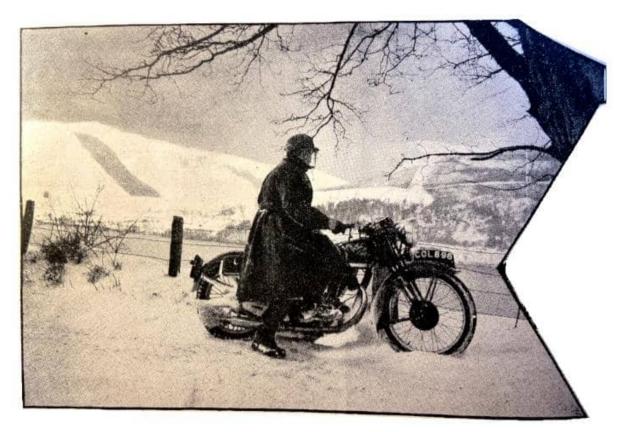
"OFTEN I HAD NOTICED the large number of iron manholes and other plates on the road between Archway Tavern, Highgate, and Barnet. Recently, I decided to count them. There are 229, excluding drains.' Correspondent in The Autocar."

"ALLOW ME TO ENDORSE your editorial remarks on the subject of trials and riders generally. The riders of to-day may be able to ride 'feet-up' through the deepest of mud, but with few exceptions they make a fetish of this type of going and practise on:every available occasion. Thus, riding in these 'snappy' trials has become a circus balancing turn almost requiring a special machine. A large proportion of amateur trials riders and

their mounts do not show up too well on the road parts of the course or in the muddy lanes connecting sections. All-round riding skill must suffer in consequence. A Paul, London, N2."

## Five Hundred Wintry Miles

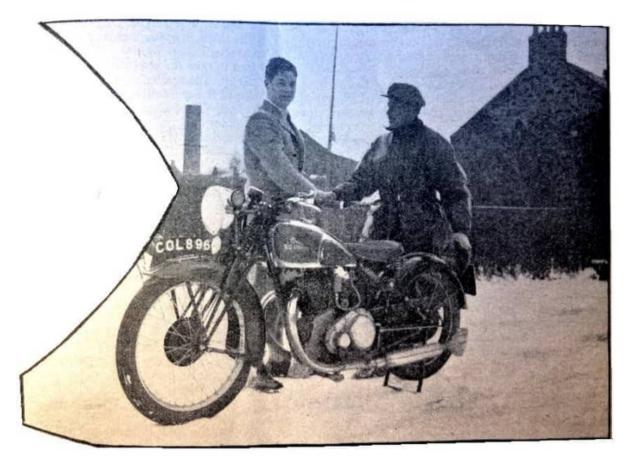
"LAST WINTER THERE APPEARED in the correspondence columns of The Motor Cycle a letter under the nom de plume. of 'Manufacturer'. This letter inaugurated a competition, open to all motor cyclists, to find the design desired by the majority; and the winning entrant was to be awarded a machine built as near as possible to his design. Now, as many readers will recall, this competition was sponsored by the New Imperial company, and the lucky; winner proved to be an Edinburgh University student whose home is at Abernethy, a few miles outside. Perth. Of course, it took time to produce the actual machine evolved from the design submitted, but late last November 'Torrens' described his experiences with the model after riding it for a few days. Afterwards the machine went back to the works, previous to being handed over to Mr A McDougall, the fortunate winner. Last week it was my happy experience to represent The Motor Cycle and ride the machine up to Abernethy, there to hand it over to the winner on behalf of New Imperial's. For weeks I had been looking forward to this run. Unhappily, when all was ready, I fell a victim to a puerile, but highly contagious, affliction. However, after three weeks' quarantine, I was fit and ready for the trip. And so it was that soon after noon on the Wednesday the New Imperial and I were to be seen threading our way through. London's traffic, and on to the Barnet By-pass, en route for the North. 1 had some slight misgivings on account of the weather forecast threatening snow and gales ahead. There was already a stiffish side wind, but the New Imperial bowled along the monotonous Great North Road at a steady 40mph. The machine had covered a number of miles since 'Torrens' had ridden it, and the engine was running with that sweetness and silkiness which denote careful running-in. However, because the model was still very new and also because it was not my own, I had not the least intention of flogging it. Nevertheless, the engine seemed to revel in almost any speed, so it was not long before the speedometer needle was pointing to 50. I did not attempt to exceed this speed, but was content to enjoy the comfort of the spring frame—I had the dampers, both fore and aft, slacked right off. Mile after mile was reeled off. At Grantham, after 110 miles, I stopped for a rather late lunch. It was then that I noticed a tell-tale stain of Ethyl on the primary gear case. But the leak thus indicated was caused by nothing more than a slackened



"Low clouds and snowstorms concealed a great deal of the Highland grandeur normally to be seen from this viewpoint overlooking Loch Tay towards Glen Lyon."

petrol pipe union nut. When 1 went to open the tool-box, I found the 'cup-board was bare'. Not a single tool—and here was I on a 500-mile journey! I was not dismayed, I borrowed a few spanners at a garage and tightened up any nuts that might conceivably slack off. By the time I reached Doncaster it was getting near lighting-up time and also becoming very cold. We were in Yorkshire and the hotels by the wayside looked very tempting. But I had aimed at getting past Scotch Corner at least, so I kept in the saddle although my hands were getting more and more numb with the intense cold. Boroughbridge and Catterick slipped by—it is curious how short the miles seem in the dark—and eventually we turned left at Scotch Corner for the Carlisle road. It was here that I first encountered the snow. Although the road was free from it, the fields and trees lay hidden under a beautiful white mantle, all the more fairylike in the beam of the powerful head lamp. I decided to stop at Bowes for the night, for it was 7.30pm and I had no desire to continue by night over that wild moorland road that rises to over 1,400 feet before dropping into Brough. When I was awakened next morning I heard the wind howling through the eaves of the old hotel. On looking out I saw that the snow of the previous night had not melted. On the contrary, it was beginning to snow again. Outside it was really bitter, while the wind had risen almost to gale force, driving the snow fiercely before it. In these cheerful conditions I left Bowes for the long ascent up to New Spital, followed by the drop into Brough. Very soon I was riding over ice. In addition, there was a strong south-easterly wind blowing, and the combination of slippery ice and strung wind resulted in the rear wheel constantly sliding over to the crown of the road. Meanwhile, the snow came down so thickly that visibility was reduced to a bare ten yards in places. It was altogether eerie—but not exactly pleasant! Only two vehicles did I see, and one of them was in the ditch! At last we started the descent into Brough, where the carpet of snow on the road was beginning to melt. With the better conditions I was able to ride at a steady 40, and Appleby and Penrith were behind us in a short time. Just outside Penrith I came across a large six-wheeler and trailer lying on their sides in the hedge, a long way off the road. Quite how they got there I do not know, for I did not stop to enquire. All was plain-sailing through Carlisle and on the long, fast road to Lockerbie and Beattock. Ahead I could see the high peaks of the South of Scotland gleaming white in their winter's coat of snow. It was a beautiful spectacle, though hardly a pleasant thought to know that I had to take the road through these mountains! Another long climb to Abington, where I found the force of the wind-driven snow most unpleasant—almost like hail. Time and again I saw roadside telegraph wires and poles which had been blown over in the gale. Carefully and slowly I rode the New Imperial along the slippery roads through Lanark and the many mining villages en route for Stirling. Conditions gradually became worse. It began to snow harder, while the roads were coated with ice. What was worse, it was now getting dark. How I loathed and hated that road from Callander to Lochearnhead. It winds and twists along the shores of Loch Lubnaig—and last Thursday, with such a high wind blowing...But if conditions were bad at this point, they were infinitely worse over the Glen Ogle Pass Irons Lochearnhead to Killin. Here a virtual blizzard raged, and in the rapidly falling light it was an enormous relief to drop down, or rather slither down, into Killin, where it was my fortune to find my good friend Bob MacGregor, the well-known Rudge rider, at home. A warming glass of whiskey—the real McKie—made me quite certain that at Killin I must stay. And at Killin I did stay! So far, the New Imperial had performed wonderfully. Nobly had it stood up to the slogging in high gear that I had been forced to use in the snow. But conditions on Friday's run along Loch Tay, through Aberfeldy to Perth, were infinitely worse. It had snowed steadily all night, and the roads were inches deep. That was just the trouble sometimes the snow was a mere two or three inches deep, and then there would be drifts a foot or more deep. Because of the difficulty of spotting these drifts, I was forced to proceed with great care. It often surprised me how the Universal rear tyre obtained a grip up some of the slopes which I was forced to climb slowly. Still, I enjoyed the run immensely. I followed the south road along the shores of Loch Tay, and was impressed by the extraordinary way in which the sun occasionally shone through the clouds ahead of me while it was still blowing almost a blizzard everywhere else. I passed on my right those 'Scottish' favourites, Cambussurich and Ardtalnaig, both snow-covered and almost unrecognisable. Near the end of Loch Tay I stopped for a cigarette and a photograph, and was joined by a passer-by, who was an enthusiastic photographer. He was justly proud of his pictures showing a frog waiting outside a beehive to make a meal of a bee or two. In spite of the snow-bound roads, the New Imperial steered perfectly,

my only difficulty being to check the violent side gusts of wind, which must at times have reached at least 60mph. Normally, such side winds cause little worry, but on snow and occasional patches of ice it was a different story. However, we reached Aberfeldy and then Birnam without trouble. So far I had been on more or less virgin snow, but from Birnam onwards I joined the main road. Heavy lorries and buses had transformed the snow into a



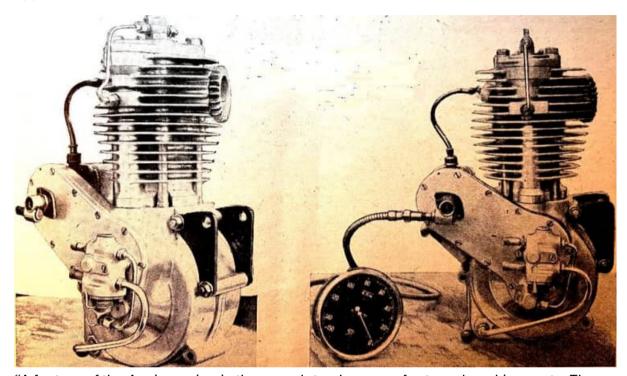
"After his 500-mile run from London to Perthshire, 'Ambleside' hands over the New Imperial to Mr A McDougall."

highly polished form of ice, forcing me to use both hands on the bars—up till then I had been riding with my left hand hanging loosely behind in the slipstream, where it kept comparatively warm. I toured through the slushy streets of Perth, only to find the roads even more icy on the far side—Abernethy lies about eight miles south-east of Perth. To make matters more unpleasant, the gusting wind was blowing broadside across from the left, and several times I found the model sliding towards oncoming traffic. At last we reached our destination. No one Was there to greet us—probably because we were not expected on such a day! But when a knock on the door did call attention to our presence, we were given a right royal Scottish welcome. After an unofficial 'presentation of awards' we wheeled the faithful New Imperial to a shed, and soon I was sitting down to a Welcome repast of hot broth and other Scotch tasties. Mr McDougall, only recently out and about after over a year in hospital with an injury received while playing Rugger,

was itching to go out in the cold to give his machine the once-over; he resisted the temptation until I had finished. But he was out in a trice as soon as I went upstairs to change, and for the remainder of the afternoon we spent most of the time admiring the machine. It was scarcely wise for him to attempt to ride it just yet, particularly in a snowstorm. In the meantime friends popped in to congratulate him, and it was a cheery party that sat down to a high tea. It was still snowing hard, but I had a glowing feeling of having set out to do something in the face of adverse conditions and having accomplished it. And I liked to think that the New Imperial, outside in the cold shed, was feeling very much the same. We had stuck together for over 500 arduous miles, and now I was to bid good-bye—both to the machine and to my new-found Scottish friends.—Ambleside"

"AN ENGINE OF ORIGINAL type for which phenomenal performance is being claimed has been undergoing development during the past few months. The new unit is the design of FM Aspin, and development is being undertaken by FM Aspin, Egyptian Mills, Elton, Bury. So far the work has been carried out on a 250cc motor cycle engine, but the principle is being applied to car, lorry and aero engines. Unfortunately full details cannot be published at this stage, but an examination of the drawings and component parts confirms the soundness of the ideas on which the claims are based. Briefly, the claims are as follows: The engine will have a range of rpm up to 10,000 or more; compression ratios of over 12 to 1 are possible without the use of special fuels; the scavenging of the cylinder is so complete and the turbulence of the charge is so controlled that the fuel is used about twice as effectively as in a normal engine (therefore the engine does not overheat); even when using commercial grade fuel on a 10 to 1 compression ratio it is possible to use ordinary porcelain insulator sparking plugs; the inlet and exhaust areas are quite unrestricted at full aperture, and are of enormous size in relation to the cylinder bore. Those are the claims. Constructionally the engine is built almost entirely of light alloys, and although its big power output (for the size of cylinder) demands an exceedingly robust crank case, the weight of the experimental 250cc engine is only 48lb, of which 18lb is flywheel weight necessary to secure good tickover with the high compression ratio. At present the engine is working on a 13 to 1 compression ratio, but it has been run at slightly over 17 to 1. The power developed, it is stated, is in the region of 25-27bhp, comparable with a 500cc supersports engine of normal design. The alloy cylinder barrel has a. nitrided hardened liner and an alloy head. There are no external working parts and nothing to adjust. Valve gear in the accepted sense is eliminated, but the mechanism that controls the inlet and exhaust is enclosed in the cylinder. head. Once assembled it is quite inaccessible, and automatically provides its own compensation for heat and wear. It absorbs no more driving power than a magneto, and in consequence the mechanical efficiency of the engine is very high. A normal engine, as used in the TT, was converted to the Aspin system some time ago. Since then it has covered a big mileage, in addition to running

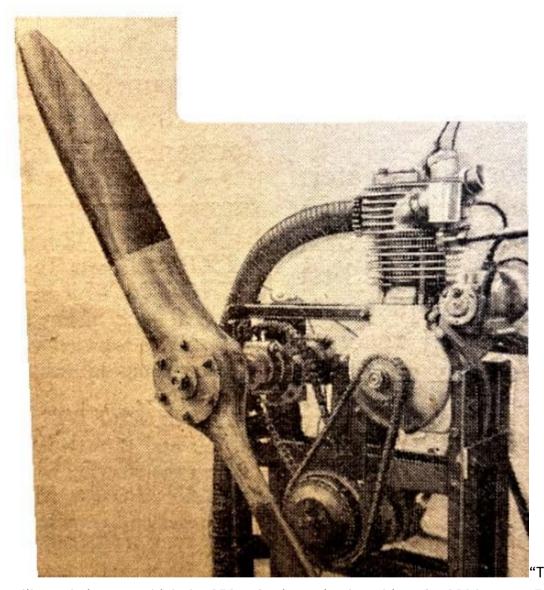
280 hours on the bench at between 8,000 and 11,000rpm. The only trouble experienced was due to the T.T. crank case failing to stand up to the power output from the small Aspin. cylinder. An unusual feature of the engine is that with very small modifications it can be operated on either the two-stroke or four-stroke cycle. If used as a two-stroke it develops nearly double the power of the four-stroke at equivalent rpm. Although the engine is capable of such high revolutions it is not dependent for its useful power on this fact alone, for at any given rpm its advantages over existing types are equally apparent."



"A feature of the Aspin engine is the complete absence of external working parts. There is no valve gear in the accepted sense; the mechanism that controls the induction and exhaust is enclosed in the cylinder head. The engine can be operated as either a two-stroke or a four stroke."

"MOUNTED UPON A STAND in the works, [a 250cc Aspin engine] is driving a 5ft 3in propeller through a motor cycle gear box at a speed of about 1,500rpm; the engine is developing about 18bhp at 5,000-5,200rpm. Exhaust noise is not excessive, even with an open exhaust port, for there is no high-pitched crackle such as results from a normal ohv engine with racing valve-timing. One of the claims for the Aspin engine is that combustion is as nearly complete as can be attained in practice and that the exhaust therefore is free from flame, heat or excessive noise. That a 'cold' exhaust has been achieved is a fact, because the hand that wrote these words was passed across the open exhaust port at a distance of two inches when the engine was doing 5,000rpm, and the effect was much the same as the warm breeze that wafts from a barber's electric hair drier. Look ing straight into the exhaust port, not a sign of flame or colour of any kind could be observed. An ordinary three-point Lodge touring plug is used, and the

compression ratio is 14 to 1. More remarkable still, the fuel used is Shell-Mex commercial spirit with a 30-40% addition of ordinary paraffin! The consumption is 0.34lb per bhp hour—only a little over half that of normal engines. When the engine was seen recently it had done 620 hours at 5,000rpm without attention..."



calibrated airscrew which the 250cc Aspin engine has driven for 620 hours at 5,000rpm without attention. The fuel used is a mixture of commercial petrol and paraffin, though the compression ratio of the engine is 14 to 1!"

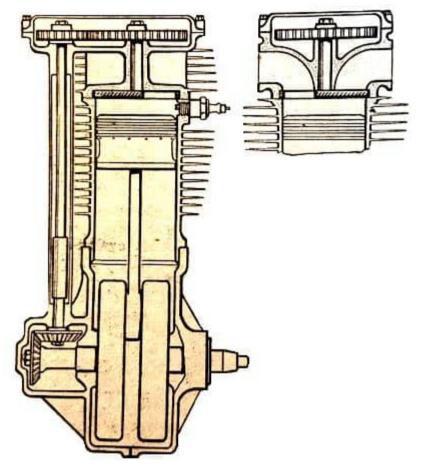
"I READ WITH INTEREST the details of the Aspin engine. No doubt this is yet another experiment which, though vastly superior to any commercially obtainable engine, will be completely ignored by the manufacturers. Surely some method can he found whereby such revolutionary engines may become obtainable as standard productions? Maybe our ultra-conservative manufacturers would begin to take notice if one of these engines won the TT or Manx GP. It seems fairly obvious now that the present-day engine has reached the limit of its performance, and unless something is done very shortly our

precious prestige will be collared by the Continental firms who do, at least, show initiative. But no; the manufacturer prefers to effect 'detail modifications only' and continues to produce the same machine year after year. Of course it is sold—because the buyer has no alternative—so the state of affairs continues indefinitely. There was once a time when aero engine designers looked to motor cycles for inspiration. No longer is that so; motor cycle engines are where they were 15 years ago, except, of course, for 'detail modifications'.

Cynic, Amersham, Bucks."

"UNORTHODOX ENGINES—A Hollander's Design. 'With regard to the engine described in The Motor Cycle, perhaps the following would be of interest to others: Some years ago I designed an engine with as far as I can see from the photographs, exactly the name method of operation. The two sketches roughly illustrate my design. Instead of valves there is a rotating disc. This disc is fixed on an axle which has a cam wheel, and the cam wheel is driven by the same mechanism as used on ohe machines. On the rotating disc there are large inlet and exhaust ports of special shape and dimensions. The sketches are not quite correct with regard to the relative positions of the inlet and exhaust apertures. The light disc will permit high revs and the large apertures provide good filling and scavenging. I should like to congratulate Mr Aspin on his excellent design, the more as I realise that years of hard work and deceptions must have preceded this new engine. Cordial greetings to all English motorists.

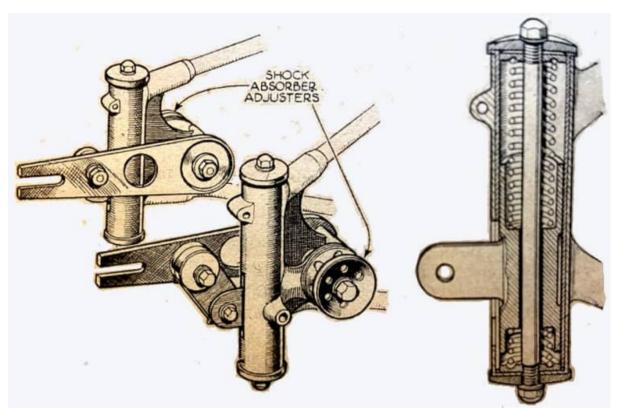
CS1 Norton, Amerstol, Holland."



"The engine designed by

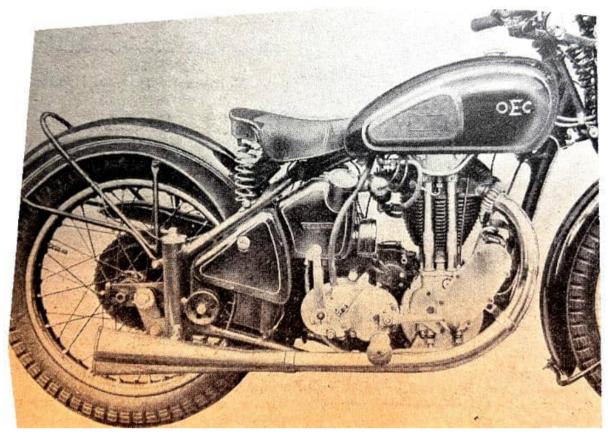
'CS1 Norton' has no valve gear in the accepted sense, but the inlet and exhaust ports are controlled by a rotating disc that is shaft-driven from the main-shaft."

"THE PROBLEM OF producing a spring frame that is neat and efficient, yet which does not add appreciably to the cost of the machine to which it fitted, appears to have been successfully tackled by the OEC concern. More than that, they have introduced an entirely new range of machines which in design and appearance reach a very high level. There are four models in the range—two-port ohv singles of 250, 350 and 500cc, and a side-valve 1,000cc twin. All have engines specially made for OEC by the Matchless-AJS factory. For the purposes of description the 500cc model may he taken as typical, although in the case of the 250 the construction is lighter. The new frame, which is of the duplex cradle type, is particularly sturdy. It has a l¼in diameter front down tube and a 1in. single top tube (instead of the twin tubes used previously), while the seat stays are also of lin diameter. It is, however, in the system of rear wheel springing that the most interesting development is to be found. For instance, the spring boxes are of larger diameter (2¼in externally) and much shorter, and they are now fitted with detachable liners. Internally, the system comprises in the case of each spring box one long upper spring and one short



"Simplicity is a feature of the redesigned rear springing system. The spring boxes can be completely dismantled in a few minutes." (Right) "A sectional view of one of the spring boxes. Note the way the two springs engage with cups on the plunger, and the long retaining bolt."

lower one, with a piston-type plunger interposed between the two springs. An arm attached to the piston protrudes through a slot in the spring box and is connected to the fork-end by a short toggle. The phosphor-bronze bearings in the connecting arm are adjustable to a slight extent as regards end-play. The springs are retained by detachable end caps that are secured by means of a long ½in. bolt that passes right through the spring box. Thus it is a simple matter to dismantle the boxes and effect any renewals. The fork-ends themselves pivot on large-diameter phosphor-bronze bearings formed in the spring-box castings, immediately in front of the boxes. These bearings are provided with adjustable hand-controlled dampers. Throughout the system the bearings are of unusually large diameter and are provided with grease nipples. Another important feature is that the chain tension remains practically constant. As regards the general features of the new models, all have black tanks with gold lining, and embossed makers' initials. Capacities are 250cc, 2½ gallons; 350cc and 500cc, 3 gallons; and 1,000cc, 4 gallons. All-black handlebars and chromium-plated wheel rims further enhance the neat appearance of the machines."



This view of the new 500cc OEC gives a good idea of its compactness and the sturdy construction of the spring frame."

"TWO LENGTHS OF roads at Oxted (Surrey) have been freed from the speed limit. The speed limit has been imposed on a length of the London-Eastbourne road near South Godstone School."

"NEARLY 2,400 ITALIAN enthusiasts took part in the recent Winter Rose Rally, held in connection with the Milan Show."

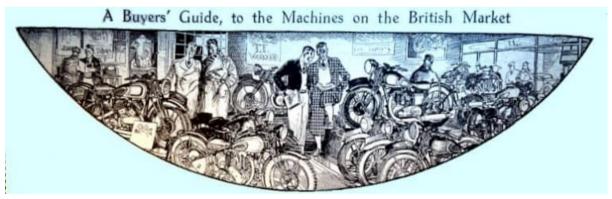
"SUMMONED AT ROMFORD (Essex) for careless driving, a motorist pleaded that a sunset over the Thames Estuary distracted his attention."

"ADVICE CENTRES FOR MOTOR cyclists are to be arranged by the BMCA. These centres will be open to all motor cyclists and advice will be given free of charge on all motor cycling matters: They will be attended by an official of the BMCA and a member of the Metropolitan Committee of Motor Cyclists. The free advice service also covers queries sent by post. This service has always been available to members, but now non-members are invited to take advantage of it, providing they include a stamped addressed envelope for reply. The BMCA is not, however, prepared to give technical advice to non-members, or to involve themselves in expense on their behalf; this would obviously be unfair to members." The British Motor Cycle Association was concerned by the strength of public prejudice against motorcycles and motorcyclists. Asserting that "the motor cyclist handles his mount with greater skill than any other type of road user"

the BMCA issued (for five bob a year) machine badges indicating the number of years the rider had escaped prosecution for any motoring offences.

"A NORTHERN READER, newly returned to his birthplace from the south, urges me to demand why that typical north-country dish of ham and eggs (a) cannot be obtained south of Lancashire, and (b) why, to use an Irishism, if you insist on it being served, the ham is never really eatable? Southron readers, for the most part, have never sampled this excellent viand. The ham I should explain, is no measly, waferlike rasher such as first-class southern hotels substitute for the genuine article, but approximates more to the dimensions of a chump chop, and may be a good 1½ inches thick if callipered at maximum bore. My northern friend asserts, with some justice, that after one has covered 100 miles in the saddle on a cold day this dish, washed down by beer or tea according to your liking, is infinitely preferable to the usual hotel menu, and can be prepared by a cook in a very short time if the traveller arrives when the set meals of the house are 'off'. Perhaps some sonsie\* north-country wife will send the Editor directions for cooking the ham properly, so that it melts on the tongue and doesn't need champing† like an old boot sole; and then south-country eating places might take notice, and serve to order."—Ixion

\*Sonsie (sonsy), according to the OED, equates to "Plump, buxom; of cheerful disposition; bringing good fortune". †Champ: "Munch (fodder) noisily; work (bit) noisily in the teeth "qv" champing at the bit".



The annual buyers' guide in the Blue 'Un revealed that prices ranged from 16 guineas for a single-speed 98cc Cyc-Auto to £140 for Brough Superior 990cc ohv SS100 (just ahead of the 1,000cc Vincent Rapide at £138 and Harley 'Knucklehead' at £139 2s 6d. Choices between £55 and £60 included long-lived favourites including the Beeza M20, Norton 16H and Ariel VB side-valves, and ohv 500s from Royal Enfield, AJS, Matchless and Triumph.

The Motor Cycle Buyers' Guide listed every marque on the British market: AJS, AJW, Ariel, BSA, BMW, Brough Superior, Calthorpe, Chater-Lea, Cotton, Coventry Eagle, Cyc-Auto, Douglas, Excelsior, Federation (made by the Co-operative Wholesale Society), Francis Barnett, Harley Davidson, Indian, James, Levis, Matchless, Montgomery, New

Imperial, New Gerrard, Norton, OEC, OK Supreme, Panther, Rudge, Royal Enfield, Scott, SOS, Stevens, Sunbeam, Triumph, Velocette, Vincent-HRD, Wolf and Zenith.

WANDERING THROUGH A motor cycle factory always makes me wonder what proportion of the cost of a new machine goes in what one may term non-essentials. You come to a press busy turning out steering damper plates, another machine drilling the holds in oil-bath chain cases, a third producing bits used in rubber-mounted handlebars...Not so many years ago a motor cycle consisted of a diamond frame, a pair of forks (without dampers), a simple three-speed gear box, two wheels and an engine. This is not quite the whole story, but very nearly so. Now we have four-speed boxes, separate oil tanks, square feet of chromium plating, enclosed overhead valves, electric lighting, fork and steering dampers, much more elaborate brakes, force-feed lubrication of the dry-sump type, quickly detachable wheels in some cases and all manner of other things. On my recent visit to a factory, half the work seemed to be in connection with items we did not have a dozen years ago. Now, I suppose, these self-same parts have become essentials!"

"A THING WHICH SURPRISES me is the small number of motor cyclists who have their speedometers illuminated at night. Perhaps it is because I ride so many different machines per annum that I look upon speedometer illumination as essential. Maybe the majority of motor cyclists who ride one machine and one machine only, can tell by 'fee' whether their mount is doing 28 or 30mph. I have my doubts, and suggest that if no speedometer light is provided by the manufacturer, and the machine is ever used at night, it is advisable to buy and fit a speedo lamp and thus be on the safe side."

THE SHORT REIGN of Edward VIII is of no interest to us as he took no interest in motorcycles. But when he abdicated to marry an American divorcee he was replaced by his Brother George VI who, while still Prince of York, had owned a Douglas and sponsored Brooklands ace SE Wood.

"LAST SATURDAY AE PERRIGO (348cc BSA) won his first Colmore Cup. For some time he has not met with much success, but last week-end, following up his win in the Lister Trial, he found all his old form and beat Len Heath by a narrow margin, the issue eventually being fought out in the brake test. Perrigo 's seven marks were lost on one hill, Sainthury, whereas Len Heath (497cc Ariel) dropped a foot on three hills, Meon, Saintbury and Warren. These two were run very close by George Dowley (246cc AJS) and Alan Jefferies (348cc Triumph), who on observation tied with eight marks lost, and it is a tribute to George's riding that on a machine of so small a capacity he finished so high in the list—and a tribute to the machine! It would be unfair to pass over individual performances without mentioning DK Mansell (490cc Norton sc). With only one failure and three marks lost for footing, his effort ranks very high indeed. The gales and blizzards of the previous week had been forgotten, or almost so, when last Saturday dawned, and the Cotswolds basked in the welcome sunshine of a perfect day. There

had, however, been sufficient bad weather to make the course difficult, and competitors found their work well and truly cut out on Meon, Saintbury, Warren and Camp hills. At Stratford-on-Avon, Sunbac officials, headed by the president, were going cheerfully about their work, large cars drawing trailers drove up in quick succession—some people even arrived on motor cycles—and the Trade was well represented."

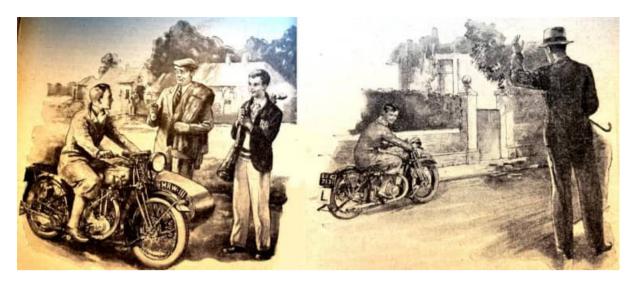


"WS Waycott (Velocette sc), just before he stopped on Camp Hill."

The Blue 'Un devoted an issue to recruiting converts to motor cycling, including anecdotes of how youngsters found their first bikes. Here are two examples; one charming, t'other...not so much.

"FRIEND Ixion has on several occasions taken the part of the luckless schoolboys whose parents are prejudiced against motor cycles. Last September, while spending a short golfing holiday on the south coast, I was able to play Ixion's role, with the result that a schoolboy became the possessor of his first motor cycle and a prejudiced parent an enthusiastic sidecar passenger. In the clubhouse of a well-known south coast golf club I was introduced to a man many years my senior. However, our handicap was almost identical, so a game was clinched. My opponent had brought his son to act as caddy, but as yet I didn't require such luxuries. During the game I learned that this son was yearning for a motor cycle, but his parents were opposed to the idea of their only son having even a pedal cycle, let alone a motor cycle. The father summed up motor cycles as 'dangerous, noisy and dirty things'. I was able to offer a strong defence against the two former accusations, but had to admit that our machines might be cleaner. After the game—a very close one—the topic was discussed again over a drink in the clubhouse. The man's son was getting quite excited, for apparently I had been the first person to take his side on the question. It transpired that he was old enough and, better still, wealthy enough to own a first-class machine; but the stumbling-block of parental opposition stood in the way. When, later, I was leaving the club with my side-car outfit I

caught up with my late opponent and his son walking down the road. I stopped and offered them a lift to the nearest town, about a mile away. There was some hesitation on Senior's part, but Junior said, 'Do jump in Dad, it looks very much like rain.' After some friendly leg-pulls father tumbled into the sidecar, while the boy seated himself on the pillion seat. Off we went, very cautiously at first. I cast anxious glances at my passenger, and tried to fathom whether or not he was nervous. Then he said, 'Let her go, my boy.' That was encouragement, and as it was just starting to rain, and my waders were somewhere in the sidecar, I lost no time in delivering my two passengers to their house. This had been the older man's first taste of motor cycling. I was invited in for a cocktail, and it was then that I learned that their car had stripped an axle-shaft some 30 or 40 miles away and that in the morning they were going to hire a car to collect the family 'barouche'. I chanced it—I invited father to try another ride, a taste of what motor cycling was really like. He greatfully accepted, and all I hoped now was that to-morrow would be fine. My abbreviated sidecar had been built for a well-known competition rider's rather diminutive passenger, and offered little, if any, protection against our proverbial summers. During the course of our conversation I explained that my sidecar was a trials outfit, and that the sidecar fitted was not of the normal touring type. The next day was fine and dry, however, and I arrived at the appointed hour to find my passengers all ready for the trip. When father expressed a mild desire, prompted by his son, to cover some trials course going I could hardly believe my ears. I was a trifle scared at first—hadn't I failed miserably on easy hills like Doverhay and Beggars' Roost, in the previous Land's End? So I kept the so-called trials course going to a few carefully selected hills in the Petersfield district—there had been plenty of rain diving the night which left my gentle slopes in quite a tricky condition. And I was very lucky (or very skilful!) that nothing untoward happened. It was now lunchtime and the car had not been collected. So we made a bee-line for Winchester, where father took over his car again. Son climbed into the sidecar and we followed father back to his house on the coast. It was over dinner that evening that the boy got the surprise of his life permission to buy a motor cycle, on conditions. The conditions were simple —I was to approve the purchase and to teach the young man to ride. Three weeks later I was showing the owner of a very smart 250cc Triumph how to ride, and in less than a month's time those unwelcome adornments called 'L' plates were cast aside. Just lately a London motor cycle club has enrolled a new member, a young one. Yes, he is the youngest in the club—best of luck to him!"



"ONE OF THE MOST amusing yet tragic of my own 'prospective riders' was a youth who came in 1913 to buy an old 1906 Rex de Luxe of mine which had been kept in a dampish coach-house for several years. He was a boy of about 16, who helped to keep going the home of his widowed mother. Somehow he had found out that I had this unwheelable old derelict and was as keen to possess this scrap-iron as the enthusiast at Olympia is to possess the latest model. I asked him l0s for it and he thereupon ran home and returned with a hand-cart and two packets each containing five shillingsworth of coppers. When my wife saw the boy's eager eyes and his two packets of hard earned savings she looked at me. I knew what that meant, and the lad returned with the motor cycle and the coppers, too. After using the old Rex for about two years- this enthusiast joined the Machine Gun Corps, went to France and afterwards to Mesopotamia., where he remained—for ever."

"WHAT'S HAPPENED TO THE Stock TT race? I have no doubt that quite a few motor cyclists and also FRZS would like to know if a red-jacketed 'clubman' riding a 'comet' at nearly 'unapproachable' speed could catch a 'squirrel' riding a 'tiger' which is 'leading the industry', or whether 'Flying Fox' with his 'speed of a bullet' could pass a big 'panther' ridden by a 'Coventry'-bred 'eagle', but perhaps the winner might be little 'Johnnie R', who, given a 'Sunbeam-y' day, might win a handicap from a 'lion' on a 'plover', providing, of course, that the 'cotton' didn't break; if it did I am afraid there would be an SOS to the pits long before the race reached its 'zenith'. But, the result would be 'OK' by all. So what about it, anyway, Messrs. Manufacturers?

GE Bullen."

'THERE HAS BEEN FORMED a new club for Scott riders, to be called The London Scott Motor Cycle Club, and it is intended to admit only enthusiastic riders. Now this does not mean that We are all Langinans, Mavros or Jefferies—nor is it a scheme of 'splendid isolation'. It is just an honest endeavour to ensure that we get a keen set of riders, who will be prepared to uphold the prestige of the Scott, and we are going to try to pick out and develop a few outstanding riders. The club is strictly limited to a membership of 100

for the first year—50 have already joined, and the other 50 are to be proposed by members and accepted by the committee. Events for 1937 will include Clubman's Day, and, we hope, a few speed events. As for trials, we are staging two on the lines of the MCC events, ie, long distance with three or four stiffish hills and brake and acceleration tests included. This trials policy has been adopted after much discussion, and the club thoroughly agrees with The Motor Cycle's policy of long-distance events, which, we think, will be the ultimate destiny of all trials of the future. We, as Scott riders, have positively no use for the modern trial with its 'feet' of mud, and we are of the opinion that this type of trial serves no useful purpose for either the rider or the manufacturer. **Ronald Hayes,** Hon Secretary, The London Scott MCC, London, W1.

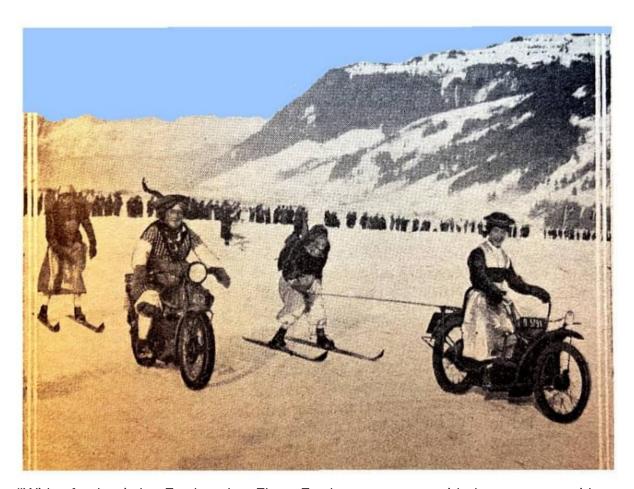
"I WAS VERY INTERESTED in your article 'A History of the Motor Cycle Movement, Part 1'. No doubt to the present-day rider the machines illustrated seem very crude. There is, however, one important point in design which, instead of having advanced, has, in fact. deteriorated. I refer to saddle suspension. I venture to suggest that the pitching and hammering experienced at speed on the modem rigid-framed machine is greatly aggravated by the rider's weight coming down en the rigid point of a saddle. In your landing article you suggest that it is difficult to produce a spring frame that is neat, cheap and efficient. This problem should not hinder the saddle manufacturer, who, I think, has sat comfortably on the fence far too long.

## R Bishop, Birmingham."

"AS A KEEN BROOKLANDS spectator I was very interested to hear that the BMCRC will come under the control of the Brooklands proprietors this season, and I do hope we shall see some of the fast scratch riding on the outer circuit which used to thrill me in the late '20s. Of course, Fernihough's Brough has revived a bit of the old spirit during the past two years, but it must be heartbreaking for him to average 111½mph from scratch, yet not catch sight of the winner, who scoops the money at 86-odd, which happened last year! 1 think the best race of 1936 was the Gold Star Handicap, when the stipulation was that the entrants had to be 100mph men—to cut the slower (!) men out—and Fernihough, from scratch, squeezed past Pope just across the fork on one lap, and passed 'Mortimer at the same place just 15 yards too late to win. Would it be too much, to hope that the Charlie Collier vs Jake de Rosier never-to-be-forgotten duel could be repeated in a match race between our Fernihough and Germany's Ernst Henne? Three events—over 1 lap, 2 laps and 3 laps—would, I am sure, draw spectators from all over the country.

## EA Howard, Lyndhurst, Hants."

"THE HOBBY OR SPORT of mine that runs in harness with motor cycling is rockclimbing. My, motor cycle carries friend, camping kit, climbing kit and myself up to a chosen Lakeland centre in about two hours. From here we climb to our chosen crag (on foot), take out the guide book if it is unknown climb we are attempting, and begin our trapeze-like antics on the 300-500ft wall towering above: Like motor cycling, our other sport suffers badly at the hands of the general public. But if I attempt to draw an analogy between our sport of rock climbing and our sport of motor cycling, maybe you, motor cyclist, will not think of rock-climbers as fools: (1) Motor cyclists on the whole are young; so are rock-climbers. (2) Motor cycling can be enjoyed by a great number of people; so can the easier rock climbs. But, and here is the main analogy, the higher forms of motor cycling, such as trials riding and racing, are enjoyed by the motor cyclists who are enthusiasts, who have nerve, grit and stamina! So is the highest form rock-climbing for people of enthusiasm, nerve, grit and stamina! Now that I have got that little bit off my chest, may I try to point out why a gulf exists between a real cyclist and a real motor cyclist, and why that gulf will never be bridged, perhaps narrowed? The real cyclist obtains his chief enjoyment from cycling to a place—not just getting there! In delightful country away from the 'madding crowd' the cyclist has the advantage over us. How can we poor motor cyclists imbibe the spirit born of solitude of the real England, when the essence of civilisation, the throbbing i/c engine, is dinning in our ears? Now, how about the real motor cyclist? His thrill comes from his agility, from his unchallenged position as king of the road. Can he not help but feel superior? From these brief outlines—I have omitted the joy of the mechanic and engineer—you can enlarge and find that a cyclist will rarely become a motor cyclist, and vice versa; they are fundamentally different! So when arguments crop up—as they are always doing—on the subject, please remember this wide gulf between real cyclists and real motor cyclists. Icarus, Bolton."



"With a feather in her Tyrolean hat: These Tyrolean women provided amusement with their ski-ing antics on the frozen Zellensee Lake (Austria) during a recent carnival. And have you noticed?—the woman on the right is riding a Ner-a-Car!"

"LAST WEEK A MAN who dropped in for technical advice was was very wroth. He had written to three manufacturers and in each case the reply not only failed to answer his points, but treated him as a mutt. This, I suppose, explains why it is we reserve so many hundreds of queries from readers. Really we are doing work which by rights should be undertaken by manufacturers' service departments. Very flattering to us, of course, but—well, I have looked up the figures: the number of letters we received from readers last month asking for advice was precisely 1,306. Colossal, isn't it? Spare a little pity for your humble servants!"

"I NOTICE WITH pleasure that a correspondent uses and advocates trafficators on his machine. They add a trifle to cost, and something to complexity, but there is no question that hand signals bother the inexpert motor cyclist. Hand signals are never too visible after dark—they are usually given too briefly by the average driver. The 'turn right' signal is the vital item in the Code, and this can be given only by momentarily sacrificing control of the engine and the front brake, since the throttle and front-brake levers are on the right handlebar. Hence, even on dry roads when he feels perfectly comfortable, the average rider 'flashes' this signal as a kind of desperate dab of the right arm, easily

missed by following traffic; he cannot easily keep the right arm extended for, say, 20sec as a good cyclist can afford to do."

"I HAVE OFTEN WISHED that some medico with real experience of motor cycling would publish a reasoned technical analysis of the sport's effect on our physical fitness. The wish was fished up to the top of my mind by a letter to hand from a reader this morning. Until four years ago he was a martyr, in a mild way, to indigestion and constipation, and often laid up with severe colds. Since starting to ride a motor cycle to work daily all his ailments have evaporated. In my own twenties I lived in a city and worked very hard indoors. I was always unfit, obviously for want of what The Times, in a recent leader, actually called 'Ekker'. At first I experimented with the National Sunday League trips to the coast, but they effected no improvement. I tried Rugger, cricket, and hockey in their season, but found that I took the field so physically tired that games only left me still more exhausted. Then I took to a motor cycle—at that date an expensive, unreliable, and often humiliating mode of travel—and discovered, to my surprise, that a motor cycle did me a world of good. As far as I know, no experienced doctor has ever analysed and defined 'Ekker'. It certainly is not mere physical exertion, for 50 miles in the saddle demanded, even then, little muscular output. The benefits of motor cycling must consist partly of oxygenation (which one gets on the saddle but never in a saloon car) and partly of continuous movement imposed on the muscles and bodily organs, such movement not being necessarily associated with any output of strength or effort. From that date to this I have invariably and uniformly found that motor cycling keeps one extraordinarily fit and increases one's bodily resistance to all forms of ailment and disease.—Ixion"

"LAST SATURDAY, AT THE Kickham Memorial Trial, A Jefferies Triumph) and AE Perrigo (348cc BSA) made equal performances on observed climbs, neither losing a mark. Jefferies, however, put up a better performance in the special test, and so won the Kickham Trophy. Mansell (490cc Norton sc) made the best performance in the passenger class. The Triumph team, consisting of Jefferies F Thacker and J Douglas, carried off the Manufacturers' team prize with a total loss of 17 marks, while the Uplands team prize was won for the Birmingham MCC by AE Perrigo, GF Povey (498cc AJS) and Vic Brittain (490cc Norton). This year an even shorter course than usual was used for the Trial, but there were eight observed sections in the 39 miles, including a stop-and-restart test and a brake test."



"Old and young, expert and novice, are all intently watching DK Mansell (490cc Norton sc) make a perfect climb of Uplands. WS Waycott can be seen standing on the far bank."

"MUSING ON OUR Prospective Riders' Number, I fell a-wondering how little of the world I should have seen if I had never been bitten by the motor cycling bug. Two wheels have carried me over huge areas of the Continent, and into every remote corner of the British Isles. This is apart from and additional to the intrinsic fun of the hobby, the pals it has made for me, the technical interests it has created in me, the rough and smooth of going places, and all the rest. If I had never motor cycled, I should doubtless have been abroad by train, and spent short vacations in the more conventional resorts of the home country. But never could I have achieved without a motor cycle a memory so packed with beauty as mine is to-day. To quote one typical example. What non-motor cyclist has ever seen the indigo loch slumbering under the dark slope at Jeantown, or topped the Pass of the Cattle and revelled in that gorgeous expanse of mountain and lake and ocean? The public regards us as rather soiled and untidy fellows with a lust for speed. Actually, it would be truer to describe us as amateur engineers, with a genius for friendship and a passion for beauty (not, of course, excluding the feminine variety)."—Ixion

"LETTERS WE RECEIVE from readers in Canada and the USA frequently contain the remark that the writers cannot understand why British manufacturers do not standardise safety bars. Nowadays these bars are fitted to a large number of American motor cycles. Indeed, the vice-president of the Indian concern stated some time ago that 99% of the machines he sells in the USA are so equipped. Briefly, safety bars may

be said to take the form of twin tubes running transversely from the base of the steering head to the front engine plates, thus acting as protection for the rider's legs and saving the machine from damage in the event of it toppling over. It is proved by the unobtrusive designs employed on American motor cycles that there is no need for the bars to be unsightly. That such an arrangement forms a simple, sane method of machine and rider protection needs no stressing. Even legshields, in spite of their comparative flimsiness, have proved a blessing to many motor cyclists. In these days of congested roads, anything that can be achieved in the way of reducing vulnerability is worth while. We suggest to every manufacturer that, by incorporating safety bars in his designs, he can make a useful contribution to safety—one that, unlike grandiose road improvement schemes, can be put into effect immediately."

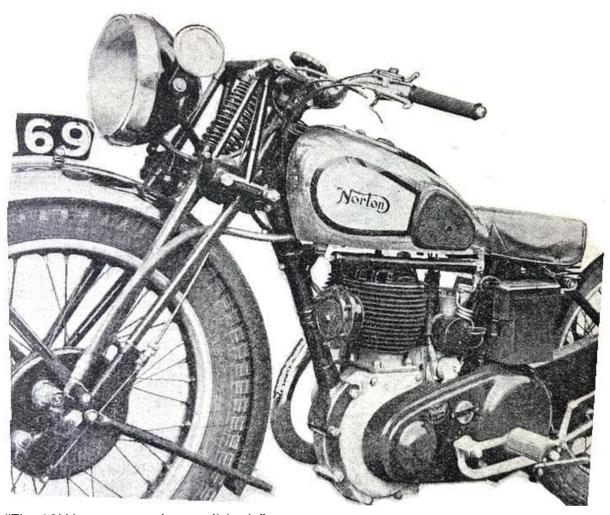
"VERY FOOLISHLY IT HAS become the fashion among, a section to decry the side-valve, although in actual fact it is the type most suitable for a considerable proportion of motor cyclists. The side-valve engine requires less maintenance work than the average ohy machine, and the work is much simpler to carry out. In addition, it is usually the more flexible type of unit, and pulls better at low speeds. Theorists will point to the lower thermal efficiency of the side-valve engine, yet the fact is that machines with this type of power unit usually cover almost exactly the same number of miles per gallon. Fuel consumption, however, is only one item in running costs. There is also the question of repairs and maintenance. In our experience the all-in running costs of a side-valve machine are usually considerably lower than those of the equivalent overhead-valve machine."



"Simplicity is the keynote of the side-valve engine. The instrument panel fits snugly into the trank. (Right) Clean, rakish lines distinguish this year's 16H Norton which incorporates many TT features."

"IN THESE DAYS OF high-efficiency singles with overhead valves and high compression ratios, some motor cyclists are inclined to overlook the simple side-valve model. The

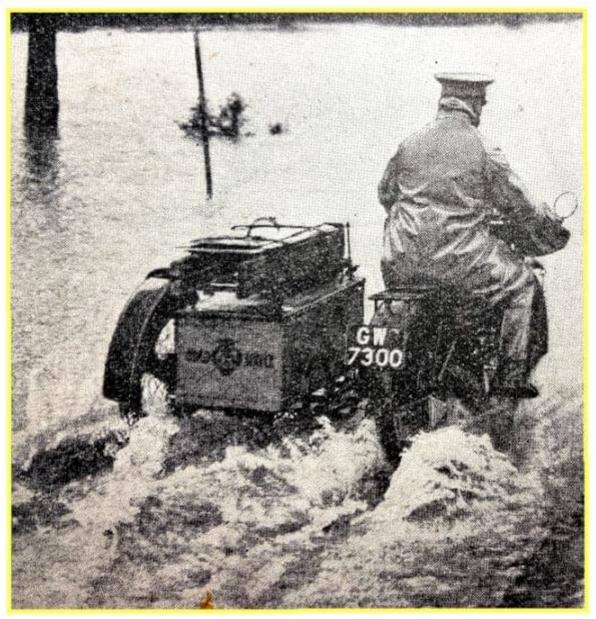
16H Norton, however, is a machine with a staunch following. It is easy to understand why this is so, even after a brief acquaintanceship, for this 490cc side-valve machine has a performance akin to that of a lively overhead-valve 500—plus exceptional docility and flexibility. The riding position is very good for a short-legged person, but a trifle cramped for a rider of medium height. The saddle is unusually low, and the adjustable footrests must necessarily be set high on account of the position of the positive foot gear-change. This lever is adjustable, but only to a limited extent, on account of the lever fouling the footrest hanger should it be set at any angle below the horizontal. Consequently, the high position of the lever calls for considerable and rather awkward movement of the right leg when selecting a lower gear. All controls work in an admirably decisive way. To coin a phrase, the machine immediately imparts the feeling of a 'real job of work'. The kick-starter is suitably geared in relation to the engine, and even on cold mornings starting requires little effort. Under these conditions the Norton would usually start at the first kick, provided the carburettor had been flooded. With the ignition advanced, a rough and ready tick-over could be found with the throttle, and then by gradually retarding the ignition the engine would settle down to an excellent tick-over. At idling speeds the mechanical silence of the Norton was uncanny. Even when the engine was running in a garage, to locate any mechanical noise beyond the swish of the primary chain and the hiss of the carburettor. In fact, at all engine speeds the quietness of the exhaust and the engine was most praiseworthy. The clutch was smooth in action, although under traffic conditions it showed a tendency to drag slightly. However, at all times bottom gear could be selected without any noise. The gear box could be abused to the extent of making so-called 'racing' changes, ie, with the throttle open all the time. While the selection of the various gears does not call for any comment, their disengagement did at times require considerable effort, no doubt due to the position of the gear lever and the clutch drag already mentioned. A feature of the Norton is the manner in which it can be ridden off in bottom gear with the engine turning at little more than idling speed. The engine produces an unusual amount of power at extremely low revolutions, and this enables the fullest use to be made of the engine's flexibility. Where it would normally be necessary to change down into a lower gear when rounding a corner, the Norton will pull away smoothly and sweetly in top like a multicylinder machine. It will throttle down to 12mph in top gear without snatch, and from this speed will accelerate without a trace of pinking or distress, in spite of a rather high gear. The gear ratios are well chosen, and undoubtedly they play a big part in the extremely efficient way in which the Norton performs. A speed of 45mph can be easily reached in second gear, in which ratio the acceleration equals that of many first-class 500s. But this speed is not the absolute limit, for the almost-vibrationless engine will rev in a way that is most unlike a side-valve, and in doing so will provide a speed of just over 50mph. Much of the charm of the 16H lies in its delightful performance in third and top gears. The ratios are well matched, and as they are fairly high the engine cannot be over-



"The 16H has a neat primary oil-bath."

revved on a long downward gradient. There is no doubt that a speed slightly in excess of 70mph can he reached on the road. The speed of 67mph is the mean of six runs over a timed quarter-mile taken in both directions. The Norton is almost as fast in third gear as it is in top. Partly on account of the silent nature of the gear box, it was at times extremely difficult to tell whether third or top gear was being used. The acceleration of this extremely quiet machine was of the highest order. Even when cruising at a comfortable and steady 60mph—a speed in which the Norton appeared to ravel—the engine was distinctly lively, and imparted that feeling of having more power is hand. At the other end of the scale it would pull up long, tiring gradients in top gear without any complaints, while should a sporting type of acceleration be required under these conditions, all that was necessary was to use third gear. In keeping with the Norton's sporting performance, the brakes are excellent. Both back and front brakes have a pleasant smoothness in their application and yet both are absolutely positive. At low speeds the steering was light and positive, in spite of the wide-section tyres. When approaching the maximum speed the steering became a trifle too light, and although there was no question of wobble developing, the damper was brought into action to the extent of one turn. With the damper in use the steering was excellent, and this,

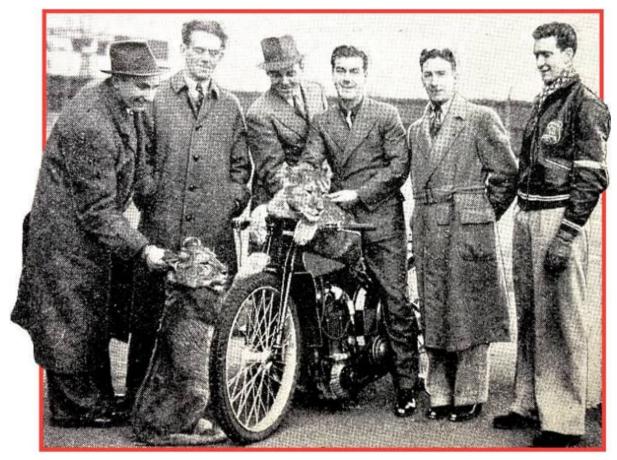
combined with the admirable road-holding properties of the machine, made fast work on open road a real pleasure. At a maintained speed of 40mph the Norton's petro1 consumption was in the region of 90mpg, while the oil consumed was negligible. The engine remained completely oil-tight throughout the test, except for a slight smear on the timing case. Oil did, however, leak in small quantities from both the kick-starter housing and from the primary oil bath. In spite of any miles covered on wet roads the machine remained almost free from grit and mud, thanks to the excellent mudguarding."



"Aye! Aye! AA! An AA patrol cruising in hime waters at Laddingford (Kent)."

"I HAVE ALWAYS BELIEVED and preached that our roads (until the Ministry of Transport got busy with its straight edge) meandered as they did because they were trudged out on the map by pedestrians and fellows on palfreys, who naturally circumvented by detours every swamp and spinney and hillock encountered in their journeyings. Our

literary editor has just made me wonder whether I am right by showing me a poem of GK Chesterton's which starts: 'Before the Roman came to Rye, or out to Severn, strode, The rolling English drunkard made the rolling English rood. A reeling road, a rolling road, that rambles round the shire, And after him the parson ran, the sexton and the squire; A merry road, a mazy road, and such as we did tread The night we went to Birmingham by way of Beachy Head.' On top of this I get a snap from a reader of his outfit parked along the Sidmouth-Seaton road, opposite one of those ultra-modern 'advance' signposts located 50 yards before the road junction, and bearing the single word 'BEER' in huge capital letters. Thirsty lads are warned that this Beer is not a beverage but a Devon village!"—Ixion



"Lions among lions: Two nine-month-old lion cubs have joined the staff of Wembley Stadium. They are to act as mascots to the speedway and ice-hockey teams, which are both known as the Wembley Lions, In this picture Lionel Van Praag, the Wembley speedway captain (seated on machine), is seen with the cubs and with members of the ice-hockey team."

"LAST TIME I WROTE you on the subject of spring frames was early in 1936. With you, I confidently anticipated a rush season for springs in 1937, and it is most disappointing to read that an endeavour is being made by makers to treat the idea as a flash in the pan. A year's riding here and abroad on my New Imperial has proved that there are no snags whatever in the spring frame, and the comfort (my age is 60) has to be experienced to be

believed. 'Torrens' remarked recently something about a difficulty in poising on the footrests with a certain spring-frame machine, but I do not get his idea. With the New Imp arrangements, at any rate, one doesn't poise, but just sits on the place provided by nature and stays put without difficulty and without discomfort. On modern highways the pot-holes known to and feared by us old hands are few and far between, but the sunk sewer man-hole still provides that shattering jar when one is riding a rigid-frame machine. With my spring frame I just do not bother, as the jolts do not reach the saddle. For the £3 extra one gets 'four-wheel' comfort. Usual disclaimer.

## J Stuart White Snr, Leeds."

"I SINCERELY HOPE that the suggestions of your correspondents 'RWDG' and 'WJS' will not be acted upon by readers. Motor cyclists to-day are untidy enough without using up pull-overs or old trousers in the ways-mentioned. With so much smart kit on the market I am often surprised at the untidy appearance of mans riders. Breeches, field boots or rubber Wellingtons of good pattern, and smart 'lancer'-style riding coats are within the reach of most. I am a member of a club where military-type kit is favoured. I find leather breeches, military field boots and a leather coat ideal for winter use, but in summer I invariably turn out in well-cut cavalry twill breaches and puttees.

## BM/BNJE, London, WCl."

"A FAMOUS firm did their utmost to make their instruction book dud-proof. They sent it out, slapping their chests and congratulating each other that never again would their service department be harassed or their customers held up by an elementary snag. A week later the Riders' Friend on the staff received a letter: 'On trying to remove the licence holder to insert the licence disc, I found it apparently jammed. There is no description of it in the instruction book, and I should value your advice.' New edition of said book now in the press, I suppose?"—Ixion

"A VETERAN RIDER suggests that the basic and invincible fascination of motor cycling, which grips some of us to the very brink of the grave, is biological. Man's first experiment and experience in fast travel was riding, not driving, and in most races was associated with the horse. Centuries of riding horses and/or camels—he suggests—created an hereditary passion for riding. Those individuals in whom the inherited instinct is strong can never be put off with driving as a substitute, or accept a glass box on four wheels as preferable to a saddle."

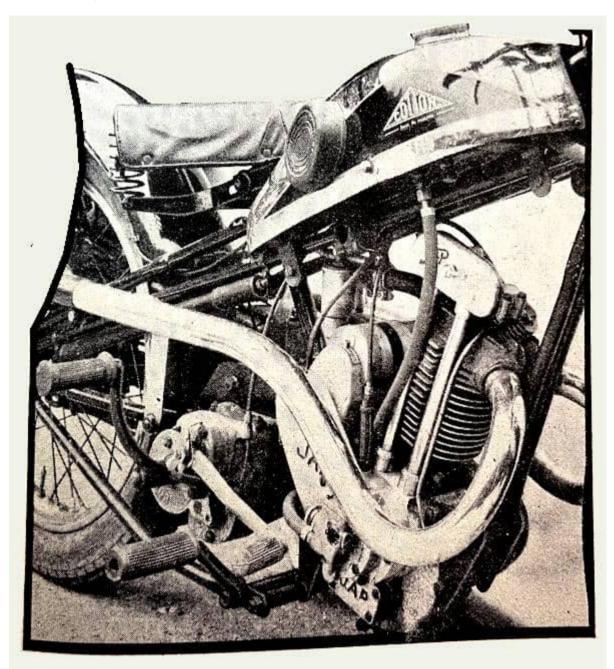
"THERE ARE NEARLY 150 corps of motor cyclist police patrols in USA, each state having its own organisation. The state of New York has four separate corps, wearing different uniforms and employed for different purposes. Sidecars are used by the licence and vehicle inspection corps, who are all married men. The City police motor cyclists may be either married or single, and are generally ordinary 'bulls', taught to ride standard machines to increase their mobility for routine police jobs. But the men who ride the

100mph machines are intended primarily for chasing drunken and speeding drivers, or for hunting down the culprit in a crash, or for anti-gangster work. "



"THERE IS ALWAYS something fascinating about a lively 250, with its ease of handling and excellent steering. In the case of the 245cc Cotton submitted for test there was liveliness as well as all the good features usually attributed to 250s. The machine under review, Model 250/37, was fitted with several extras not in the standard specification. One of these optional extras was the Burman four-speed gear box with foot change. Although a trifle low, the riding position is comfortable. Both the brake and gear pedals are well placed in relation to the footrests, while the arrangement of the handlebar controls is neat and compact. The Terry saddle has a small range of adjustment for height, and even with the seat pillar tube type of mounting set at its highest the back rim of the seat occasionally came in contact with the rear mudguard when the machine was travelling over bad roads. Even from cold the Cotton was a certain starter, although quite a hearty effort was required to turn the engine over considering the size of the engine. As soon as the engine had started the throttle could be set for a quiet and steady tickover. On two occasions during, the test when the machine was started up first thing in the morning blue smoke appeared in excessive quantities from the exhaust This suggested that in some manner small quantities of oil had gained entry to the crankcase via the pump—the JAP engine is mechanically lubricated on the wet sump principle. Another lubrication difficult arose during the test for maximum speed. For this purpose the pump was set to give to generous supply of oil. At low speeds this was the case, but continued riding at high speeds soon showed that the oil supply was not sufficient. A partial vacuum in the oil tank (revealed by the hiss of air when removing the filler cap) gave a clue to the trouble—the air vent in the cap was choked. At first the Cotton was a trifle noisy in the indirect gear ratios, particularly in third, but there was a marked improvement towards the end of the test. Both mechanically and in the case of

the exhaust the machine is commendably quiet, even when ridden hard. The clutch is both light and smooth in operation. On the other hand, the transmission appeared to be a little harsh, and this



"Mechanical lubrication with an adjustble Pilgrim pump is fitted to the JAP engine of the Cotton."

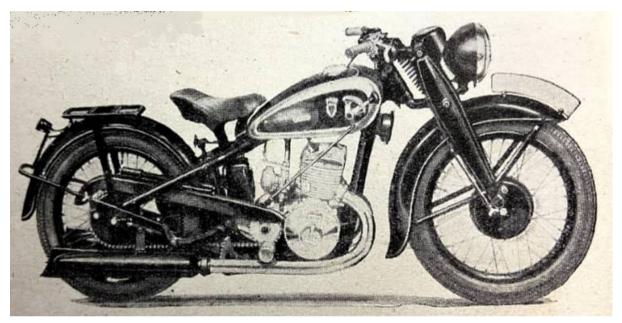
tended to mar the JAP engine's flexibility and smoothness at low speeds in top gear. Below 17mph a rather vicious snatch set in. It was at speeds above 30mph in top gear that the engine began to produce its power, and at times it was difficult to realise that the machine was a 250 and not of greater capacity. A cruising speed of 50mph could be maintained both on the level and up long main road gradients. There was very little engine vibration, except for a slight period at 30mph. The third gear ratio is well suited to

the engine's performance, and up to 45mph it provides acceleration equal to that of many larger machines. Making full use of the gears—a, certain, if noisy, gear change could be guaranteed at all times—a speed of 54mph was reached in a quarter of a mile. The timed mean speed of four runs over a quarter of a mile, taken in both directions, was 60.6mph. Of these runs the last was one of 63mph, a creditable performance, for without a mudguard pad it was difficult for the rider to assume a riding position that reduced wind resistance to a minimum. There is no doubt that under better conditions—the surface over which the runs were timed was not ideal—a speed of 65mph could be readily achieved. For many years triangulated frames have been a feature of all Cotton machines. When first introduced the makers claimed excellent cornering and steering characteristics, and these claims remain justified. The 250 Cotton holds the road perfectly, and at all speeds handles admirably, even on greasy surfaces. Although a steering damper is fitted to the Druid forks, such is the confidence inspired by the Cotton that there was no need to use it during the test. The steering is light and positive at low speeds, but does not show any tendency to become lighter or less positive at the other extreme. Road-holding remains excellent, and even when the brakes are applied to their fullest extent there is no sign of any fore-and-aft pitching. Both brakes proved extremely effective, yet very safe to apply even on wet roads. They require little effort for a sudden stop, and are delightfully smooth in action. The 250 Cotton is fitted with a Miller Dyno-Mag lighting set as part of the standard equipment. The mud-guarding is essentially of the sports type, and as a result not very effective. Finally, mention should be made of the machine's exceptionally good petrol consumption. At a maintained speed of 40mph the consumption amounted to 116mpg. Owing to the newness of the engine the oil pump was set to give a generous supply, and the amount consumed gives no clue to the normal consumption. Throughout the test the engine remained creditably oil-tight except for slight seepage at the base of the cylinder."



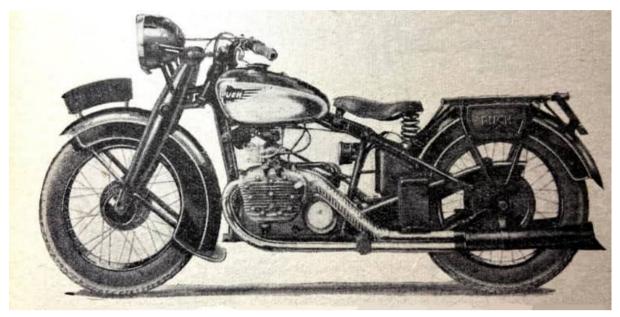
"WHILE THERE IS LITTLE NOVELTY at the Berlin Show, which Herr Hitler opened last Saturday, those who read the description of the exhibits is this issue will find much that is absorbing. It is always interesting to see the lines upon which another country is working. In this case, the particular country is one of the most advanced in the world, so far as motor cycle design is concerned. It would be wrong, however, to gauge the German motor cycle industry by its two makes of transverse twin, or by the watercooled, supercharged 250cc two-strokes that compete so successfully in the big road races. Taking German design as a whole, it might with fair-ness be termed 'ordinary'. There is just one really outstanding production machine. The vast majority of motor cycles sold are simple two-strokes of under 200cc. Germany has developed the twostroke engine to a greater extent than any other country. No doubt the main reason is economic, and this applies also to the interesting fact that coil ignition is almost universal. In the latter case, however the German wisely asks, 'Why have a magneto when you already possess a dynamo and battery?' The fact that coil ignition is so popular in one country, and one might say unpopular in another, certainly provides food for thought. British and German motor cyclists differ considerably in their demands. For instance, the German has no door to his sidecar; usually he makes do with a heel pedal for the rear brake, and he desires air filters and other aids to reducing wear, such as rear chain enclosure. Foot gear changes, too, are by no means universal even to-day. Not the least interesting feature of the Show in Berlin is the way it is made a national occasion. Imagine, for one moment, the closing of the roads from the Houses of Parliament to

Olympia, and heralding the official opening by a high-speed procession of racing cars and motor cycles manned by the most famous drivers and riders in the country. The thing is unthinkable. It is done in Germany, however. Motoring and motor cycling are looked upon through different eyes. Both, it is felt, should be encouraged to the maximum. This is done by freeing all new cars and motor cycles from taxation. Even third-party insurance is not compulsory, while those who ride motor cycles of less than 200cc do not have to undergo driving tests. The result is that the number of motor vehicles is increasing by leaps and bounds, and Germany to-day has over twice the number of motor cycles that are used in Great Britain."



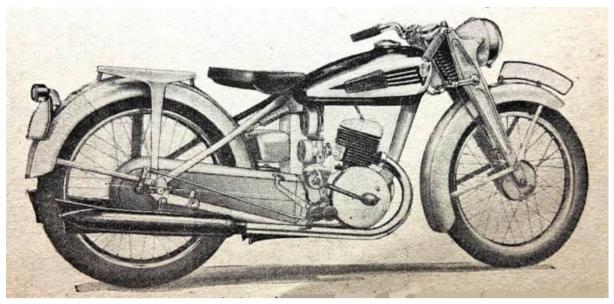
"Adjustable saddle springing is standard on the 500cc SB model DKW, which has twin side-by-side cylinders. Heel brake pedals are popular in Germany."

"GERMAN DESIGN, AS REVEALED by the Berlin Show, pleases, yet disappoints. There is little novel or even new among the motor cycles at the exhibition which Herr Hitler opened last Saturday. As a show, however, the Internationale Auto-schau is remarkable in its immense size and in the way it captivates the imagination. It extends to hall after hall, and it is easy to believe that this combined exhibition of cars, motor cycles and commercial vehicles is by far the largest in the world. Perhaps even more impressive is the way the Germans make the holding of the show a national occasion. For the opening the roads were closed right from the Wilhelmstrasse to the huge exhibition buildings at Kaiserdamm, a distance of almost exactly five miles. The route was roped off and lined by some 10,000 NSKK men with their cars and motor cycles. As a state procession alone it would have been interesting, but in addition, along these closed highways rode and drove Germany's most famous racing aces—racing cars and motor cycles, with open exhausts and, for one of the car drivers, a juicy skid in Berlin's most famous street, the Unter den Linden.



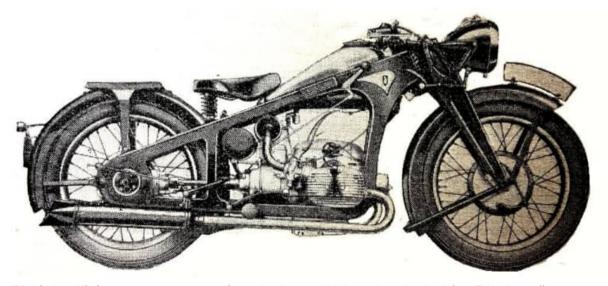
Although the 800cc four-cylinder Püch appears to be a 'flat four', actually the banks of cylinders are set in the form of a very wide angled vee."

All the solos and sidecars in the exhibition are grouped in one hall. In number of makes, Germany's motor cycle industry is not large. All told, only 10 German firms and one Austrian concern exhibit two-wheelers—11, if one includes a very interesting motor attachment for bicycles which is shown in another part of the exhibition. Of the 10 German makes, there is one which is outstanding, namely, the BMW. No other comes within an ace of the designs of this world-famous concern, except the Zündapp, which has machines on similar lines but not so neat. For the rest, the German machines are largely 'bits and piece-y'. The reason for this, according to one designer, is simply £sd or, to be Germanic, marks and pfennigs. Cleaning up a design and making a machine look a homogeneous whole costs money, and not only is low selling price extremely important in Germany nowadays, but motor cycles are selling like hot cakes. However, at least three of Germany's most famous manufacturers have new and interesting machines on the stocks, but these are not being introduced at the present time, for, it is said, there is no need to do so. According to official statistics, the number of motor cycles sold last year, exclusive of Government orders and pedal-assisted machines, was 125,131. This is easily the largest number sold in any one country. The figures over the years are not uninteresting. They were: 47,630 for 1932; 50,108, 1933; 78,179, 1934; 102,831, 1935.



"A neat new 200cc Victoria two-stroke. Totally enclosed rear chains are a feature of several German makes."

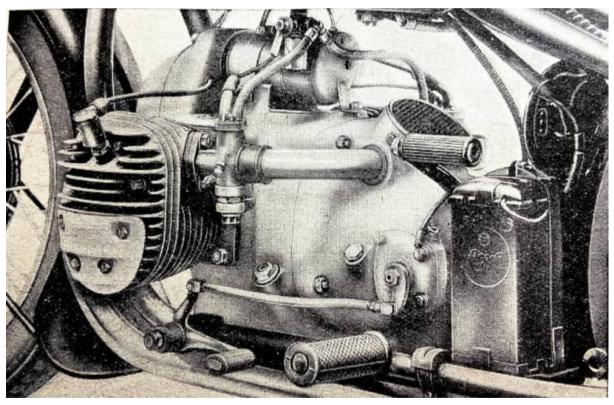
This past year has shown an increase of over 20,000, as compared with the previous one, and Germany, it is stated, now has approximately 1½ million motor cycles—a total nearly 300,000 greater than that for cars. Of that million and a quarter, it is estimated that more than half are under 200cc, and that in these times there are two machines of under 200cc sold for every one of larger capacity. The reasons are cost and the fact that those who use machines of under 200cc do not have to obtain driving licences, which involve passing fairly stringent tests. Insurance is not compulsory on any motor vehicle except commercial, though the effect of the law, it is stated, is that so far as damages are concerned it is cheaper to cannon into someone when riding a machine of 199cc than one of 201cc! No taxes are levied on new motor cycles and cars, and the appeal of the '200' is in its low cost and the fact that no driving licence is necessary. A fact that is pointed out time and again by those connected with the German motor



"A high-efficiency transverse twin—the latest 500cc ohv shaft-drive Zündapp."

cycle industry is that the German motor cyclist is very different from the British rider—he seldom rides for sport and has no interest in a hyper-sports performance. Because of the popularity of the inexpensive 200cc motor cycle, the industry must, according to one manufacturer, be looked upon largely as makers of two-strokes, a type of machine which, incidentally, has been brought to a very high pitch of perfection. Although small in engine capacity, these machines must not be thought to be miniatures—they are fully-fledged motor cycles, mostly with engines of the flat-topped piston type.

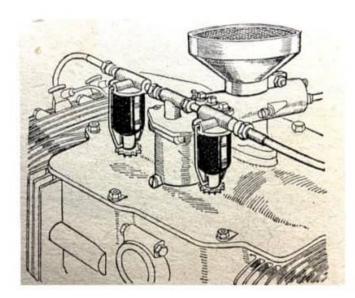
Manufacturers, in many cases, have obviously expended an enormous amount of time on saving what the English rider would call farthings. This is found in innumerable directions. To quote a few, it is to be seen in pressed mudguard stays, built-up brake pedals, the elimination of yoke ends in controls, and the making of brake cam levers in two parts, welded or riveted together. The ingenuity shown is often remarkable, and so is the catholic nature of frame design. All manner of frame construction is to be seen—sometimes quite a variety on an individual stand—and the reason, it would seem, is largely, if not entirely, a matter of production cost.

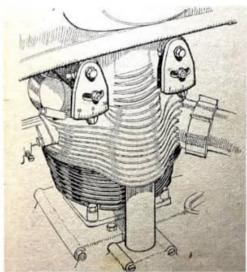


The engine-gear box unit of the new 600cc side-valve BMW. Note the foot gear change and how the air intake of the two carburettors is via a filter in the top of the gear-box housing."

Forks, too, are of all manner of types, but mostly on the small-capacity machines they are of the pressed-steel-blade kind. Perhaps the most interesting constructional point is the wide use that is made of steel pressings. No doubt as a result of increased production and the lowering of costs by new constructional methods, there has been a

tendency to reduce prices—either this or replace a three-speed gear box with one having four speeds. The latter type is by no means universal at the present time, and tyre sizes, taking machines by and large, are, if anything, smaller than in Great Britain. On the other hand, greater attention is paid to saddle springing. The BMW tension-spring mounting with its thick rubber pan-seat is well known to those who visited the last Olympia Show, and from the road test of the R5 model last year. Some machines, such as the more expensive DKWs and Victoria, have adjustable saddle springing.

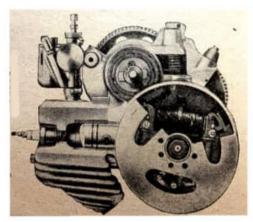




Unusual carburettor mounting on the transverse vee-four Püch. Petrol filters are provided on many of the makes exhibited." (Right) "A very simple external adjuster is provided for the enclosed valves of the new 250cc NSU."

Another interesting line of thought is that of pillion-seat suspension. Many of the German designs consist of super saddles made for carrier fixing and often with adjustable springs and a handle at the saddle-nose. This means that the pillion passenger sits higher than in England, but only, as a rule, to the extent of some three inches. Good examples of saddle-type pillion seats with adjustable springing are the Promo and the Drilastic. Another state of affairs very different from that obtaining as regards British machines is in ignition systems. Coil ignition, sometimes with a flywheeltype dynamo, such as one of the Noris designs, is almost universal. The German designer says, 'Why have coils of wire rotating at thousands of rpm when they can be stationary, especially as you have to have a dynamo and battery anyway?' Two DKW two-strokes, one a twin-cylinder 500 and the other a 200cc single, remain the only motor cycles fitted with self-starters. According to the sales manager, 15% of these de luxe models are sold with self-starters. An interesting point on the DKW stand is that the battery lugs each incorporate a peg which comes flush with the battery casing, and the two pegs that enable an inspection lamp or the leads of a trickle charger to be plugged home. As in Great Britain, the tendency is towards the complete enclosure of working parts. This does not apply merely to engines, but to the transmission. It is amusing to

see that, whereas in England the average competition rider, in spite of the deep mud often included in trials, favours open chains, the German Victoria machine equipped for cross-country and trials riding has its rear chain specially encased. This practice is spreading in Germany, and several makes, among them the NSU, have models with the rear chain enclosed in a full chain case. The equivalent of that English tag,



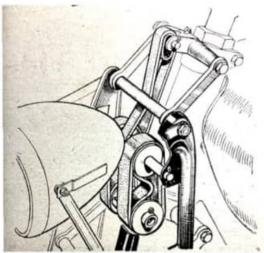




L-R: "Novel 60cc attachment for the bicycles—the two-stroke Saxonette. It is only necessary to fit the rear wheel, complete with unit, and the petrol tank-cum-carrier. Detail construction of the Saxonette. The spring above the flywheel magneto acts as a shock absorber. A light-alloy cylinder head and total enclosure of the valves are features of the new 250cc ohv NSU."

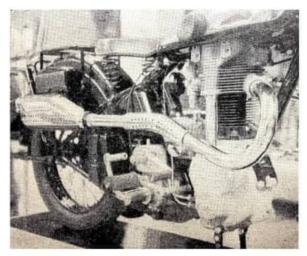
'Waste not, want not', is to the fore in Germany to-day, and great care is taken to eliminate the more obvious causes of wear. A case in point is the universal adoption of air-cleaners. It is alleged that in Germany a motor cyclist would not look at. a machine that was not equipped with one. Many of these filters are of the wet type and need to be washed out every 1,000 or so miles, and are designed to collect the dirt by means of oil. Because of this demand that grit shall not be induced into the engine, many of the Amal Fischer. carburettors, which as a make are almost universal, have no air holes low down at the side of the mixing chamber; these are arranged so that all air has to pass through the filter. Although the BMW team had spring frames in the last International Six Days' Trial, and DKWs had a spring frame in a recent German trial, neither these makers nor any others exhibit machines with rear-wheel springing. The German industry is making haste slowly, largely because of production cost and the fact that it is not considered necessary to go in for new designs at the present juncture. There is, however, a very noticeable interest in rubber as a medium for suspension Rubber bands and strips of rubber are to be seen on a number of sidecars, and the 100cc DKW two- stroke has rubber bands for its front forks instead of a steel spring. Perhaps the most interesting exhibit in this connection is to be seen on the Continental rubber concern's stand in the gallery of another hall. Here is an exhibit almost entirely devoted to showing actual applications of what is called Schwingmetall'—in other words, rubber attached

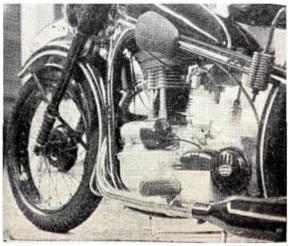




"How the speedometer is neatly incorporated in the front forks of the larger DKWs." (Right) "Arrangement of the rubber-band suspension on the latest 100cc DKW. The forks are, of course, shown in their lowest position with the near-side pressed-steel blade cut away."

to metal by means of a special vulcanising process. In addition to various car and lorry suspensions using this 'Schwingmetall' as the springing medium, there are a pair of miniature front forks and a model of the rear frame of a motor cycle, both labelled '1937'. The springing consists merely of blocks of rubber attached to steel plates. The rear-wheel springing is simplicity itself. There are two of these rubber blocks with their metal plates. They are attached to the inside of the pressed-steel frame immediately below the saddle and have mounted between them a box-shaped extension of the seatstay members. The rear frame pivots close to the gear box, and thus, as the back wheel strikes a bump, the effect is merely to distort the rubber blocks. Another interesting working model shows rubber interposed between the hubs and discs of lorry wheels in order to provide a certain amount of elasticity in the wheels themselves. On the Metallgummi stand there are steel rods and tubes joined with rubber. This type of construction is employed on certain Steib sidecars in the two upper sidecar connections. Since the two lower connections have ball joints there is thus elasticity between the chassis and the frame of the machine. The total amount of movement is probably in the region of %in. Although nearer 20,000 than 15,000 sidecars, it is stated, were sold in Germany last year there are few fresh developments. Chassis vary enormously. As a rule they are tubular and built up not by brazing but by clips. The bodies are fairly stereotyped, and either torpedo or roughly canoe shaped. Instead of the sidecar being sprung at the front it is generally pivoted, in some cases in rubber bushes. Rubber is also employed for the rear springing in several instances. On the Juwei, the sidecar wheel and the rear of the body are sprung by means of aero



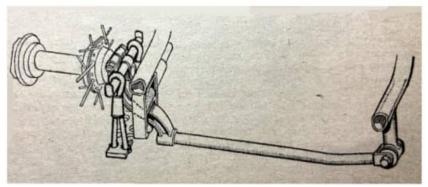


"This view of the new 500cc ohv NSU gives a good idea of the general construction." (Right) "A pressed-steel frame is employed on the new 350cc BMW. Note the cylindrical air-cleaner and the way the battery is housed in the engine-gear unit."

elastic, while the Stoye concern, which produces probably the best made sidecars of all, shows rubber band suspension. A number of the more expensive sidecars have sprung sidecar wheels, and some have a simple means whereby the driver can adjust the angle between the machine and sidecar as he travels along. The latter consists merely of a screwed rod, with clamped-on tommy bar, incorporated in the third or seatpillar connection. One end of this thick steel rod has, of course, a left-hand thread and the other a right-hand one. This arrangement is desirable in the case of sprung sidecar wheels because of the effect of 'passenger or no passenger'," and is also useful if roads vary much in their degree of camber. Since certain metals are either not available in Germany or only in limited quantities, much use is being made of substitutes. In place of chromium, a magnesium-aluminium alloy called 'Hydronalium' is being employed for control levers, tanks and so on. This is sprayed on hot and then polished. The effect is that of a dullish silver paper in some cases, though it is claimed that it can look even brighter than chromium, and also that it is considerably cheaper. In addition a new form of soldering, using an alloy containing only 20% tin, has been introduced, and fresh uses are being made of special paper for insulating purposes. As stated earlier, the R5 the 500cc ohv model BMW—remains the outstanding German design. For 1937, there is a 600cc side-valve machine on similar lines: that is, it has a flat-twin engine in unit with a four-speed box, a transverse engine mounting and a tubular frame, plus shaft drive, foot change and hydraulic damping of the front forks. This machine is not quite so neat and clean-looking as the R5, which in these respects is exceptional in the realm of motor cycles. An interesting detail is that the air intakes of the two carburettors are led to an air filter built in the top of the rear part of the gear box housing. Another new BMW is a 350cc vertical single, similar to the old 400cc model, which is now obsolete. This has overhead valves in a light-alloy head, a pressed-steel frame, four-speed gear box with hand change and a simple type of telescopic front fork. Unit construction is, of

course, employed, also shaft drive. The battery of the dynamo-cum-coil set is mounted in a deep well in the gear box casting. On the NSU stand, the machines that deserve pride of place are two new ohv mounts, one of 250cc and the other of 500cc. These are vertical singles with light-alloy cylinder heads. Complete valve enclosure is provided, the heads are ribbed

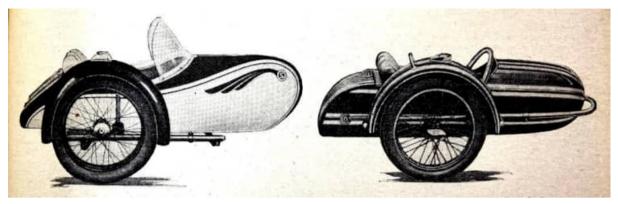




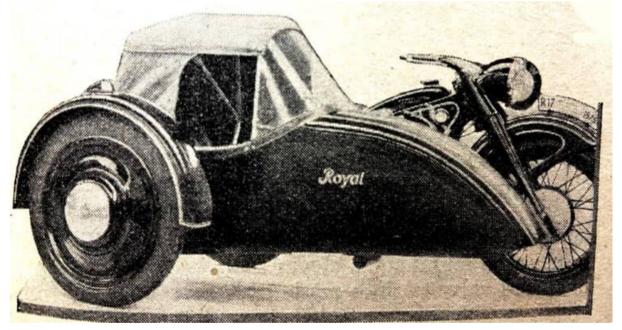
"Rubber cushioning members are interposed in the upper two connections on certain Steib sidecars. The rubber is vulcanised to the cup-shaped members and allows a movement of roughly % in." (Right) "Sidecar wheel suspension of the by means of aeroplane elastic. As will be seen, mountings are provided for eight elastics in all."

internally and the valve gear cooled by being flooded with a constant stream of oil. Bronze inserts are used as the valve seats, and the whole design is neat and workmanlike. Eccentric rocker mountings are provided for valve clearance adjustment, which requires only the slackening of one nut per rocker, movement of a scale graduated in tenths of millimetres, and, finally, the tightening of the nut. The 250cc model costa 825RM and the 500 1,200RM, which, taking the old rate of exchange is roughly £41 and £60 respectively. The idea of the light-alloy heads is simply to keep the oil, valve and plug temperatures down. Tests prove that the engine is less economical in petrol consumption rather than more economical. In ordinary running the consumption increases by about 10%. On the other hand oil consumption is reduced and valve spring life prolonged. With the idea of entering a fresh market, NSUs have introduced a new 100cc machine. This is like the Quick—a pedal-assisted machine shown for the first time last year—but incorporates a three-speed gear and is minus pedals. The price of the latter, the Pony, is 345RM, and of the Quick 290RM. Both these and the 200cc twostroke are unit jobs. DKWs, of course, continue to make only two-strokes and employ their special deflector-less piston designs. The range is from 98-490cc, the last size a twin. All are air-cooled except one racing super-charged 250, listed at 1,550RM, and fitted with two carburettors. Certain of these machines have a tiny window in the top of the Loma flywheel dynamo to enable the rider to find top dead centre. The Victoria concern shows a variety of machines, including an inclined single with side shields and an ohv flat twin. The most interesting machine is a new 200cc two-stroke with a novel port arrangement. All told there are six ports: twin exhausts, three transfers and one

inlet. Two of the transfers are in the left and right sides of the cylinder respectively, while the third is in a detachable member that also incorporates the inlet port and carries the carburettor. This detachable



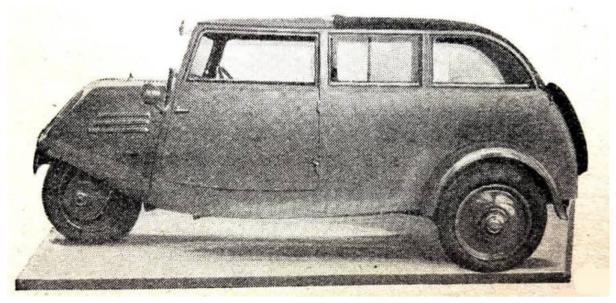
"These two sidecars are typical of German sidecar body design. On the left is a Stoye and on the right a Steib."



"A Royal sidecar of unusual appearance and construction exhibited on the BMW stand."

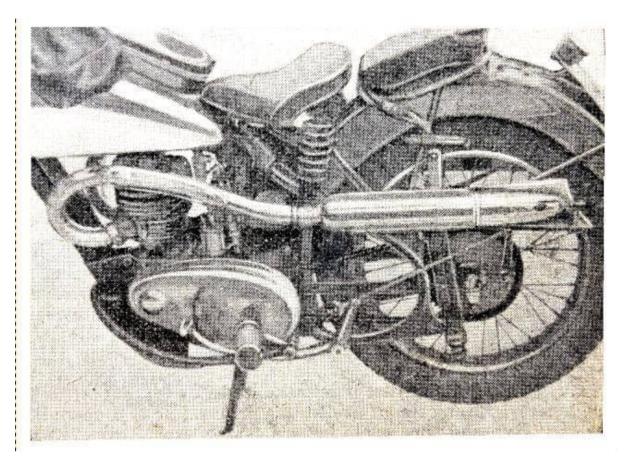
finned casting allows of easier access to the other ports for machining purposes, and is, of course, itself easily machined to any given shape. It also facilitates experiments which, it is said, have resulted in an additional horse-power merely from improved gas flow. The three streams of fresh gas transferred from the crankcase meet at the rear of the cylinder, and by impinging are directed upwards on the side farthest from the exhaust. That is the scheme, and it is said to work really well in practice. The Austrian Püch, with its double-single two-stroke design, has been known over the years. This type, with its forked connecting rod and, consequently, unusual port timing, has undergone little alteration. A new 200cc unit-construction model, is out of the ordinary so far as Püch designs are concerned, in that it has a flywheel clutch instead of the clutch incorporated in the rear hub. The transverse, almost flat, vee-four Püch is a side-

valve, with 13-stud fixings for each pair of cylinder heads. Unit construction is employed, and a strange feature is that the gear control rod passes through a special lug in the off-side saddle member.



"This mighty Tempo front-wheel-drive three-wheeler, with its four-seater body (capable of carrying half a dozen!), has an engine of only 200cc! The engine is mounted over the front wheel."

The hand control operates in a straight gate. Another unusual point is that the mixing chamber of the carburettor is mounted vertically in the top of the crankcase. The engine is of 800cc and is stated to develop 20hp. Nearby, on the Framo stand, is a novel pair of legshields which, if sprung down, act as skis and might be decidedly useful on some of the slippery surfaces still to be found in towns and cities! Zündapp show two-strokes of 196, 247 and 347cc; two transverse, shaft-drive four-strokes of 493cc, and an 800cc transverse side-valve four-cylinder. The range, which consists of neat, well-made machines (the dearer ones with pressed-steel frames), is similar to that of last year. Three-wheelers, while popular for goods delivery, are not shown as passenger vehicles to any extent. What appears to be the only passenger machine exhibited is a four-seater Tempo, with the engine over the single front wheel. The body size is such that six could be accommodated. The engine size? Just under 200cc! Finally, and as interesting in design as any newcomer, is the 60cc Saxonette motor attachment for bicycles. This is a Hartmann design produced in Germany by the Sachs concern, which specialises in velomoteur engines. In order to convert a bicycle it is merely necessary to fit a petrol tank-cum-carrier and a new back wheel that incorporates the unit. The engine is a twostroke with a 17 to 1 gear, which, it is said, enables 1-in-9 hills to be climbed without pedalling, and on a level allows a speed of just about 20mph. The price is not definitely fixed, but will probably be 150-60RM complete with electric lighting. The drive is through the wheel hub, and a special wheel disc affording fan-type cooling, is provided."



"Germany as well as Great Britain is keenly interested in rear wheel springing; BMWs, of course, used spring frames in the last International Six Days. Now DKWs have entered the field with a spring frame. The design illustrated was used in the recent German Winter Trials, and it is anticipated that similar machines will compete in this years International in Great Britain."



The model 720, now in its final year of production, was the last Motosacoche to be

designed by Bert Le Vack before he died while riding a Motosacoche combo near Geneva in 1931. The 720's 850cc side-valve V-twin MAG engine produced a modest 18hp; the forks were on Harley lines, Bosch and Amal provided the electrics and carb.

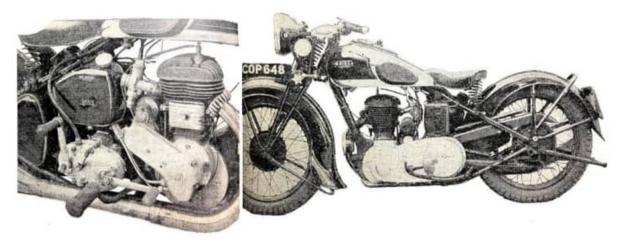
THE BLUE 'UN ENCOURAGED riders to keep logs to work out costs per mile of their machines and published a selection. The fuel consumption figures are thought provoking: 1936 Rudge 499cc ohv combo, 2,012 miles, 62mpg; 1936 OK Supreme Sports 70 250cc ohv, 9,010 miles, 82mpg; 1936 Norton 16H 490cc sv, 8,074 miles, 81mpg; 1936 Royal Enfield 499cc ohv combo, 3,172 miles, 72mpg; 1936 BSA ohv 250cc, 9,320 miles, 79mpg; 1935 250cc ohv Ariel, 4,784 miles, 94mpg; 1936 Brough Superior SS80 990cc sv, 14,051 miles, 56mpg; 1936 Brough Superior spring-frame SS80 990cc sv, 53mpg; 1936 Velocette 349cc ohv, 7,600 miles, 98mpg; 1934 BSA 595cc sv, 5,739mph, 79mpg; 1929 Ariel 557cc sv combo, 17,927 miles, 56mph; 1936 Norton Model 18 490cc ohv, 4,462 miles solo, 4,479 miles combo, 64mpg; 1929 Excelsior 172cc two-stroke, 4,000 miles (approx), better than 100mpg; 1935 Triumph 250cc ohv, 8,320 miles, 75mpg; 1935 OEC 347cc ohv, 6,744 miles, 87.5mpg; 1930 Rudge 249cc ohv, 3,390 miles, 89mpg; 1928 Raleigh 496cc ohv combo, 11,000 miles, 64mpg; 1934 Royal Enfield 225cc two-stroke, 4,171 miles, 88.7mpg; 1936 Ariel Red Hunter 348cc ohv, 10,000 miles, 87.5mpg; 1929 Scott 596cc two-stroke combo, 4,000 miles, 57mpg; 1935 Velocette KSS 348cc ohv, 11,816 miles, 83mpg; 1935 Panther M100 598cc ohv, 10,611 miles, 75mpg; 1936 Royal Enfield 250cc ohv, 5,105 miles, 99mpg; 1936 Panther 600cc ohv, 12,710 miles, solo 94mpg, combo 76mpg; 1933 New Imperial Unit Minor 150cc, 29,800 miles, 136mpg.



"The side-valve Ariel closely follows the handsome lines of the Red Hunter models. The waterproof tool box is a new feature."

"MANY ARE UNDER the impression that side-valve machines have been neglected while all the attention of designers has been concentrated on ohv models. An examination of the 1937 side-valve Ariel reveals that this is not the case with the productions of this famous firm. In specification and characteristics the 598cc De Luxe Ariel rivals many of the most up-to-date sporting 500s. The specification closely follows

that of the other models in the Ariel range. A large petrol tank with illuminated instrument panel, large tyres and brakes, long front brake and clutch levers, oil-bath chain case and four-speed gear box with foot control—all are part of the standard equipment of this well-equipped machine. As regards appearance, even the most fastidious would find little to criticise, for the model is very nearly an all-black example of the admittedly handsome Red Hunter. When sitting astride the machine it is immediately apparent that a great deal of thought has been expended on the riding position, for both hand and foot controls are well placed, while the riding position inspires confidence by its comfort. A very tall rider might criticise the fact that the offside footrest adjustment is limited by the exhaust pipe, but in all other respects the relative positions of the saddle, handlebars, and rests are excellent. On the machine tested all the controls were smooth and light in action. The clutch was very sweet and allowed rapid and easy gear changing. In cold weather, if bottom gear was to be engaged silently, it was found necessary to free the clutch by kicking the engine over with the clutch disengaged before starting up. At all other times the clutch freed perfectly. When the engine was warm starting was absurdly easy, for the kick-starter ratio is very well chosen. When cold, generous flooding and a fairly hearty kick were required if the engine was to fire immediately, but even on the coldest mornings starting required no undue effort. As is to be expected with a low-compression side-valve, the slow running was exceptionally good and with the ignition fully retarded the engine would continue to fire evenly at amazingly low revolutions. This characteristic was appreciated in many ways when on the road. In traffic, for example, when it was necessary to stop, the throttle could be snapped shut with perfect confidence that the engine would not stall, and in top gear (4.7 to 1) the machine would crawl along at 12mph perfectly happily. The performance in top gear was one of the machine's most delightful attributes. From 15mph it could be accelerated without a trace of snatch, and the time taken to reach 30mph in this gear was creditably short. But the real joy of the top-gear performance is the way the machine 'woffies' along at 15-20mph without a trace of snatch and with hardly a sound from the engine or exhaust. It is a trait that is confined almost exclusively to good side-valve and two-stroke machines. At the other end of the range, the side-valve Ariel has a useful turn of speed...the machine reached 70mph on several occasions, and given better conditions would probably have reached 72mph. In the intermediate gears the engine revved like an ohy, and when the machine was taken up to its maximum in third gear there was none of the feeling of abruptly reaching the peak that one



"The downdraught carburettor and positive oil feed to the valve gear are just two of the modern features that can be seen in this view of the power unit." (Right) "Heavily valanced mudguards and guards for both runs of the rear chain amply protect the rider of the side-valve Ariel."

associates with certain older-type side-valve engines. Throughout the range the engine was delightfully smooth and no vibration period was noticeable in any of the gears. Nor was any vibration transmitted to the rider's hands through the rubber-mounted handlebars. At normal touring speeds the Ariel acquitted itself equally well, while on the open road it could be cruised at speeds of 55-60mph for long periods without any signs of overheating. In top gear the acceleration from 20-50mph was good, and if it was desirable to increase speed more rapidly it was only necessary to drop down to third to have a very useful reserve of acceleration and power. On hills the pulling power of the engine is very noticeable; the machine would slog up long, tiring grades in easy fashion and would climb most main road gradients with at the most a drop into third gear. Throughout the test No 1 petrol was used, and when accelerating hard or when climbing stiff hills, judicious use had to be made of the ignition lever to avoid pinking. At all speeds the steering and road-holding of the machine were in keeping with its performance. The steering is neither too light at high speeds nor too heavy for traffic work, while the smooth fork action and large-section tyres ensure good road-holding. The Ariel could be heeled over on corners with perfect confidence, and on wet roads showed not the slightest tendency to skid. Both front and rear brakes were smooth and spongy in action, the front at first being rather more spongy than powerful. But with use the brake bedded down and gradually increased in power. As befits a machine with so many gentlemanly features, the Ariel attains a very high degree of exhaust and mechanical silence. The exhaust note is pleasantly subdued at all speeds, while the only time that any mechanical noise was at all noticeable was when the engine was idling. Thus it can be said that the side-valve Ariel is a docile machine with a good performance; it is clean, well mudguarded, and is fully equipped. As regards fuel economy, it covered 77 miles on a gallon of petrol at 40mph."

"LAURELS CONTINUE TO FALL on the head of AB Perrigo with his BSA, and, once again, in the Birmingham Club's Victory Trial, he has demonstrated his superiority by carrying off the premier award. It was no mean victory, for this dashing rider beat his nearest rival, Vic Brittain (490cc Norton) by three clear marks, this, incidentally, being the number of marks lost by the winner. In the sidecar class, the chief trophy was won by Harold Tozer (497cc Ariel sc), with a loss of 21 marks, a fact which indicates how severe the trial was for sidecars, this performance being good enough, apart from gaining the trophy, for only a second-class award. This year the club deserted their old huntingground in the Severn Valley and found a new course in the bleak Clee Hills above Ludlow. The change proved to be a successful one, for most of the riders enjoyed it, and it is significant that for once in a while no resort was made to the special tests in order to allot premier awards. Among the competitors there was great interest in the new Handicap Cup, and, after the publication of the handicaps, those who thought they knew a thing or two were eagerly giving their opinions as to who would win, and losing no opportunity of pointing out where the handicappers had erred. All these clever people were wrong, however, and it turned out that one of the limit men won the award. He was WA Walker (248cc BSA), who, with an allotment of 40 marks, lost 34, which made him plus 6—an interesting experiment which, undoubtedly, will be improved upon in the future."



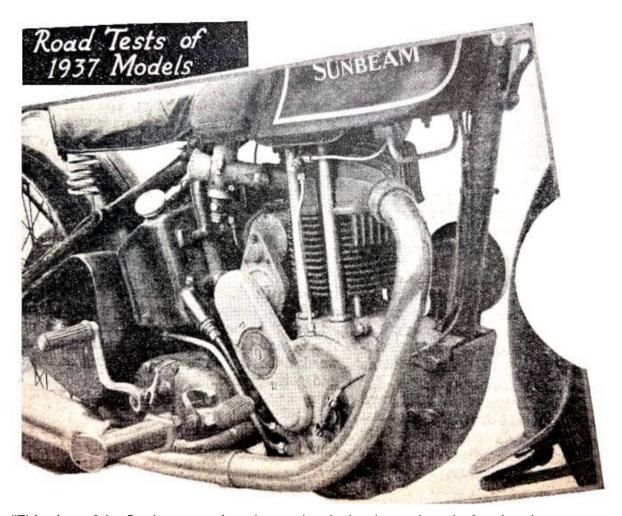


"The passenger in H Tozer's Ariel outfit 'floats out' of the sidecar as the descent of Boldventure is made. Stuck in the mud is HJD Boynton's Ariel outfit." (Right) "Vic Brittain (Norton) keeps going on Loughton."

"LETTERS POSTED IN GERMANY are being stamped with a message which, translated, means: 'Cyclists, don't hang on to vehicles!'."

"THE D'ARCY EXPLORATION Company has abandoned its search for oil on Portsdown Hill (Hampshire) after boring to a depth of over 6,500ft. The cost has been £60,000."

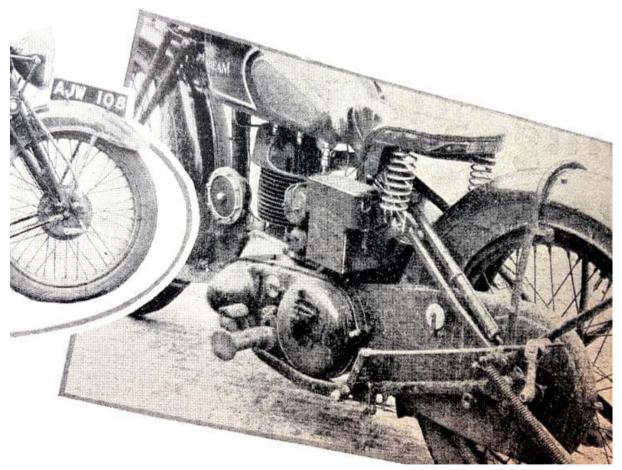
- "THE LAW JOURNAL, a publication devoted to legal matters, considers that pedestrian guard rails are unlawful, because they deny a person's free access to the highway."
- "AN EIGHT-STOREY GARAGE under construction in Berlin will be, it is claimed, the highest in Europe."
- "FRENCH MANUFACTURERS are expecting that the Government will lift the taxation on motor cycles of under 175cc."
- "ROADS ARE NOT BUILT exclusively for the drivers of motor cars.'—Lord Hewart, the Lord Chid Justice, at Maidstone Assizes."
- "FOLLOWING OBJECTIONS, the Minister of Transport has decided not to institute a 10mph limit over Bewdley Bridge (Worcestershire)."
- "SOUTHAMPTON CORPORATION proposes to charge for the use of parking places in public streets this year. This is not allowed under existing laws, and the RAC and AA are to contest the proposal."
- "CINEMA MANAGERS have been asked to advise motorists in the audience of the approach of lighting-up time by means of a message thrown on the screen."
- "A PROPOSAL FOR a road tunnel under Mont Blanc has been discussed by the French and Italian authorities. The tunnel would be about 8½ miles long and would connect Chamonix and Aosta."
- "IN THE HOUSE OF COMMONS recently the Minister of Transport was asked if he would consider suppressing the green and red traffic lights after midnight, allowing the amber light to show a warning at danger spots. Mr Hore-Belisha replied that highway authorities were not compelled to keep signals working throughout the whole 24 hours, but the practice made for safety, and the Ministry was not prepared to discourage it."
- "The AA and RAC are protesting against the 'unreasonably high' schedule of tolls proposed for users of the new Dartford Tunnel."
- "A NEW 170-MILE Paris-Brussels trunk road is to be completed by May."
- "IT IS REPORTED that in New Orleans (USA) there are five women motorists to every four men."
- "I COME NEAREST to bad temper if I am driving with trams in front of me and cyclists on the near side.'—The Bishop of Kensington, Dr BJ Simpson."



"This view of the Sunbeam engine shows clearly the down-draught Amal carburettor and the adjustable oil feed to the valve gear."

"A TRUE SPORTING ROADSTER" is a phrase that can be aptly applied to the 493cc Light Solo Sunbeam. In its design this cradle-framed only machine is on standard lines. Its performance, however, is exhilarating. Opening the quick-action Amal twist-grip causes the machine to 'hunch' itself up beneath the rider...when in the saddle of this test machine the rider not only is on a lively machine, but also feels that he is. For all its liveliness, the Light Solo has good road manners. It is liable to pink a little on ordinary petrol-benzole mixture if opened up rapidly in a high gear, and the gear box is there to be used. This, however, constitutes just about all that can be said against it on the score of manners, and is applicable to nearly every single of similar calibre. The starting is excellent. A decompressor is fitted. This is operated by a normal-type Bowden control such as is used for an exhaust valve-lifter and may easily be mistaken for a valve-lifter! With the decompressor in operation the engine is a certain starter—nine times out of ten at the very first kick. The starter pedal has an unusually short crank, and a fair amount of effort is involved in depressing it, but the certainty of starting is exceptional. All the controls are well placed with the possible exception of the rear brake pedal. In this instance the reason is not so much the pedal as the flange of rubber running round

the inner side of the footrests rubbers. With this cut away the brake operation is excellent. Incidentally, a good feature is an adjustable stop for the pedal. The clutch, which runs in the famous Sunbeam 'Little Oil-bath', tended to stick a little if the machine had been left for some time, and it was therefore desirable to ease the machine forward as bottom gear was engaged from neutral—either this or the clutch freed by depression of the kick-starter with the clutch lever held against the handlebar. Gear changing was easy and clean-cut, and the pedal, with its short movement and cranked shank, convenient to operate. Third gear of this not-new machine was just audible. The engine, however, was remarkably silent mechanically, and also had a very well toned down exhaust. On the road the machine can be driven as a tourer or used as a true thoroughbred. The engine has life and snap, and is also extremely well balanced. The maximum speed, taking the mean of runs in both directions over a measured quarter of a mile, was 74.3mph. An achievable maximum under favourable conditions was some 78mph. In third gear (5.9 to 1) there is a very useful 60mph, and in second (6.91mph to one some 40mph. Of course, higher speeds are attainable. The foregoing, however, are speeds used time and again on the open road and the 67mph figure for the quarter-mile standing start gives an indication as to how quickly and easily a high touring speed can be regained after a check owing to traffic. Cornering is



"Both front and rear chains on the Sunbeam tested were enclosed in oil-bath cases."

excellent. The machine is comparatively light, and little or no effort is required to lay the Light Solo down for a corner and hold it at the desired lock. It is more the cornering of a 350 than that of a 500. The machine is also admirable on grease. It affords real confidence, and although miles of greasy roads were covered during the test never once did the machine show any tendency towards skidding. Up to speeds of about 70mph the steering was light and positive. Above this a slight amount of steering damper was employed. At the other end of the sale, the Light Solo was almost uncanny in the way it enabled the rider to trickle along feet-up at 4-5mph. The front fork action, too, was exceptionally good. Both brakes are good—smooth in action and with plenty of power. The mudguarding, too, proved particularly good—much better than on the vast majority of machines. The front mudguard is wide and provided with a flared valance that is typically Sunbeam. As a result of this guard the machine can be ridden over wet roads with hardly a speck of mud reaching the rider's legs. In addition, of course, this very efficient guard helps to keep the engine free from dirt. The machine tested also had another desirable form of protection—an oil-bath rear chain case, which is an optional extra. Throughout the test the engine remained free from oil leaks beyond minute seepage. Fuel consumption worked out at the excellent figure of 92mpg at 40mph. A prop-stand is fitted. This has a strong spring that holds it firmly in the off position. It would probably be an advantage if the machine leant over to a slightly greater degree when on the stand, since on two occasions the machine was knocked over and, toppling on to the off-side footrest, snapped it off. To sum up, the Light Solo Sunbeam proved a first-class roadster with a true sporting performance that is a sheer joy to the enthusiast."

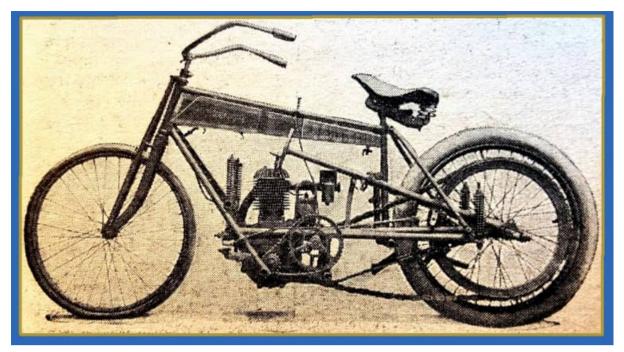
"I OFTEN READ IN The Motor Cycle of someone who made a long trip on the 'world's cheapest form of transport', so I thought I would write and tell you about a little trip a pal and myself made last summer. The first day of August found us scanning all the maps of the North American Continent, and let me tell you there are plenty. George, my pal, thought it would he a good idea to go to the Atlantic coast, for neither of had ever seen an ocean, but, having, a number of relations out in Calgary, Alberta that I had not seen for over 15 years, we decided to 'Go West, young man, go west.' On August 15th we pointed the headlight Of our '32 Indian Scout in the direction al Detroit, the first large city on our route. We had to go down into the States because the roads in Western Canada are net paved as yet. It was tie in the afternoon when we left, so we did not expect to go farther than Detroit, which is 240 miles from Toronto. We arrived in Detroit about 11 in the evening, had a good meal and camped just outside the city. On the first full day of travelling we went through Chicago and many smaller cities and, before the day was over we were 700 miles from home. The change in the country was very noticeable, the ground was much flatter, trees and rivers were farther apart, the farms larger and the towns smaller, so we knew we were on the 'prairies of the West'. After four days of travelling we could see the outline of the Rocky Mountains, so we knew we were

nearing our destination for Calgary is in the foothills of the mountains and about 200 miles to the north. So on the fifth day we landed in Calgary with no ill effects and the motor of our faithful little bike in just as good shape as when we left Toronto; the only difference was that the speedometer registered 2,500 miles more. The town of Banff, about 60 miles from Calgary, is set right in the mountains. It is the most beautiful town I have ever seen, with its background of snow-capped mountains and numerous little springs tumbling down the hills. We took the same route home, so we did not waste any time in looking around. We made it in half a day less. So now the bike is in the basement protected from the snow and sleet, waiting for me to give it the 'once over' with a wrench and cloth, and maybe next summer take her over the same 5,000-mile road. Once again a motor cycle takes a couple of chaps to see the other side of the country they live in. **George Blears,** Toronto, Canada."

"I DO NOT THINK there can be much doubt about the best designed of the motor-assisted bicycles. There was one that 'stood out a mile' both in appearance and performance, and its quality will never be surpassed by modern manufacturers. I refer to the Motosacoche. I knew of two cases when, after long use, the engines were worn out and, spares being unobtainable, the engines were removed and the cycles used as plain pedal cycles. In both cases the machines were described as being 'sweeter running than ordinary purchasable pedal cycles'. One was used by a rural postman in preference to the regulation GPO cycle. The Motosacoche was possibly 30 years ahead of its time. Its engine, a four-stroke, was excellent, and provided a cruising speed of 25mph. The total weight of the machine was about 80lb.

HRD, Halstead, Essex."

"MUCH OF THE [club] news this week comes from the North where, owing to improved industrial conditions, the centres the centres are benefiting. At the AGM of the North-Western Centre it was mentioned that many old supporters had been able to renew their allegiance to the sport during the past year, so that the Centre had completed the year in an 'amazingly' solvent position. More Centre events are to be run this year and a sub-committee has been appointed to examine courses for a centre scramble. One race meeting is to be held at Park Hall, near Charley, and the proceeds are to be sent to the ACU for the International Six Days Trial. The Bolton MC is to start off a busy year with an open-to-centre scramble near Sugar Loaf Hill, Chapman's Farm, Montserrat, Bolton; 15 laps of the moorland circuit will have to be covered."

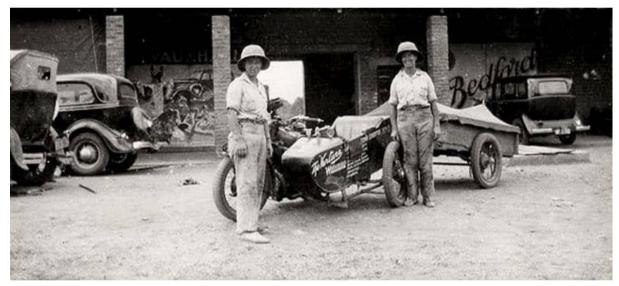


"This old Zenith, believed to be a 1907 model, was recently unearthed by Stan Marks, the Preston motor cycle agent. It has a Minerva engine with a mechanically-operated inlet valve and a Gradua variable gear. Rigid front forks are employed, although the frame is sprung at the rear."

"OF LATE YEARS the motor cycle has encountered yet another hostile factor in our islands: although our production and ownership of motor vehicles is, of course, trivial compared with such countries as the United States, we have a greater density of motors than any other people, and the congestion on our roads is more acute than anywhere else in the world. In the past many motor cyclists were not self-supporting; they were youngsters, enabled to ride by the generosity of their parents. With the daily Press and the Government dinning the perils of the roads in everybody's ears parents became reluctant for their sons and daughters to use the roads more than could be helped. Simultaneously, the development of cheap sports cars seduced from our ranks many of the undergraduate type of rider, while extensive insecurity of employment reduced the number of prosperous artisans, who at one time, and specially in the North of England, formed the backbone of the movement. Fortunately, enthusiasm is still as fierce as ever among those who remain faithful to the hobby, and attains something like fever heat in sporting circles at home, and no less in the overseas dominions. But a substantial expansion of the sport and hobby and industry can only recur on two conditions. The first is the modernisation and extension of our road system, which would go far to reduce the toll of road accidents and allay parental timidities. The second is such a boom in trade as would confer security of employment on the artisan population and restore thousands of factory hands to our ranks. Already the demand is on the upgrade and it is gratifying to record that despite a reduced demand over recent years the technical quality of our motor cycles is far higher than it has ever been, while their

prices are satisfactorily low. And although two or three selected foreign machines, such as the BMW, DKW and Guzzi, challenge comparison with our best productions in the parallel classes, yet no foreign observer would hesitate to confess that we still lead the world in this industry."

"IT WAS A CASE OF 'standing room only' at the Cripplegate Institute, London, one evening last week when the Misses Blenkiron and Wallach gave a talk to members of the International Motorcyclists Tour Club on their famous trip from London to Cape Town. The talk was illustrated by lantern slides and a cine film, and these showed better than any written or spoken word the difficulties that had had to be overcome. There were 'shots' of the Panther outfit and its heavily laden trailer ploughing their way through nearly hub-deep sand, over virgin bush, and crossing swamps by means of rickety native-built bridges, while the drivers concerned took it in turns to describe the journey stage by stage in a light-hearted way that suggested a Saturday afternoon's run rather than a Magnificent achievement. And the fact that trouble experienced with the filming apparatus did not lessen the appreciation of the audience."



Wallach and Blenkiron take a break during their gruelling trek through Africa.

"IN TOWN-NN TO-NIGHT...' If you were listening-in to this programme last Saturday, you will have heard some-thing of the reunion dinner of pre-war TT riders that was held at the Holborn Restaurant, London. As Wing-Commander Woodhouse and Graham Walker were broadcasting, 80 men who rode in the early TTs, who won a post-war TT or were intimately connected with the races, were gathering together for their first reunion. When the dinner was under way, the chairman, Mr Geoffrey Smith, MBE (Managing Editor of The Motor Cycle), called upon the riders in each year of the pre-war TTs to stand up. Six of the veterans who competed in 1907 when the TT was first instituted were present; seven, of the 1908 brigade; 1909, 12; 1910, 10; 1911, 14; 1912, 14; 1913, 17; and 1914, 18. Some men found it difficult to remember the years in which they did compete—which in view of the lapse of a quarter of a century was perhaps hardly

surprising. What was remarkable, however, was how extraordinarily young these oldtimers looked. If ever there was a proof of the fact that motor cycling spells fitness, it was provided by this gathering of veterans. As the 1909 brigade stood up, there was a shout of 'Who are these boys?', and when those who rode in 1907 rose, someone said, 'Why, not all of them are grey!' One by one, outstanding riders of the past were called upon. Among them were Freddy Dixon and Charlie Dodson, men who have won both motor cycle and car TTs, and Howard Riddell—'the only man who ever finished a TT on a pedal cycle'. For a few moments, all stood in silence in memory of those old-time TT riders who have passed on—men who in many cases lost their lives in the War, as members of the Royal Flying Corps or the Machine Gun Corps. After the toast of 'The King', Mr Geoffrey Smith proposed The Riders'. The unique gathering, he said, was the result of a happy thought on the part of Jack Woodhouse and Rex Mundy, and of much hard work by HL Buckley, who accepted the secretarial duties. Speaking to the riders, he said, 'It is you sportsmen who made the TT possible. You have never had the credit you deserve. By backing up the ACU, you pioneers with your frail and not too reliable machines made the TT what it is to-day, a premier sporting event, the results of which are broadcast throughout the world.' Mr Geoffrey Smith added that the spirit of brotherhood was still alive among the pioneers. He touched briefly upon the marvellous prestige that British machines have gained, adding that he hoped one of the riders would relate how in the old days it was possible to atop for a bottle of beer and a sandwich in the middle of the TT race! When he asked whether the reunion should be repeated there were shouts of 'Annually!' and from one quarter of the room,'Monthly!'."



"(Left to right) TW Loughborough (secretary of the ACU), Rem Fowler (winner of the twincylinder class of the 1907 TT on a Norton); and Graham Walker (winner of the 1931 Lightweight TT on a Rudge)."



"The 1937 Flying Squirrel Scott retains the sporting lines of its predecessors." (Right) "A positive-stop foot-gear change is now standardised on the Scott. The adjustable oil-feed under the tank is for the chains. Neatly mounted below the saddle is the voltage control unit, a new feature."

"EVER SINCE 1908, WHEN the first twin-cylinder Scott was produced, Scott machines have attracted enthusiasts because of the delightful way in which the engine produces

its power. The basic design of the 1937 498cc Scott engine is the same as the 1908 model, and with the design has been retained all the charm that has made the name of Scott famous throughout the motor cycle world. The outstanding characteristic of this unique engine is its remarkable smoothness. So smooth was the engine of the model tested that it was only by gross maltreatment that the transmission could be made to snatch—the engine never complained. In top gear (4.62 to 1), the usable range of speed was from 10mph to very nearly 80mph, and throughout this range not a trace of vibration could be felt from engine or transmission. In traffic, the lower gears were only required when getting away from a standstill, and top gear could be engaged almost as soon as the model was on the move. But the makers of the Scott do not claim that the machine is an ideal hack mount, and, in truth, the real charm of the Scott lies in its performance on the open road. Speeds of 60-65mph are as effortless as could be wished with this Flying Squirrel, partly because of its almost uncanny smoothness and partly owing to the entire absence of mechanical noise. Throughout the Scott's range the only sounds that could be heard were the swish of the chains and the hiss of the air intake blending pleasantly with the delightful drone from the exhaust. Maximum speeds attained in the intermediate gears were second (6.16 to 1), 67mph, and bottom (9.90 to 1), 42mph. In top, the mean timed speed over a quarter-mile was 78mph, this speed being attained, of course, with the rider streamlining himself as much as possible. Since the machine pulls a fairly high top gear, the acceleration from 15 to 30mph in this gear was not extremely rapid, but higher up in the speed range the acceleration of the Scott is excellent. The fact that a speed of 66mph was reached in a quarter of a mile is a true indication of the model's accelerating powers. At hill-climbing the Scott excelled. The model held its speed particularly well on main road hills, and one hardly noticed that a three-speed, and not a four-speed, gear box is fitted. One of the very useful features of this excellent top-gear performance is that after slowing down for bends or traffic the cruising speed can be quickly regained. Thus high average speeds are easy to maintain, and over long distances the effortless ease of driving the model was fully appreciated by the rider. This feeling of ease would be even more apparent if the riding position of the machine could be adjusted to suit tall riders. For a rider of normal stature the riding position is extremely comfortable; but for long-legged individuals the range of footrest adjustment is insufficient. The positioning of the various components—saddle, footrests and handlebars—is particularly well suited to fast road work, and aided by the unique hollowing of the petrol tank the rider is able to clamp himself on the machine without the aid of knee-grips. The controls on the handlebars are all well placed and pleasant in use. The clutch was light and smooth, and gear-changing with the threespeed box was a delightful operation. The Scott gear box has long been renowned for the ease with which its gears engage, and now that a positive-stop foot-change is fitted extremely rapid changes can be made. On the



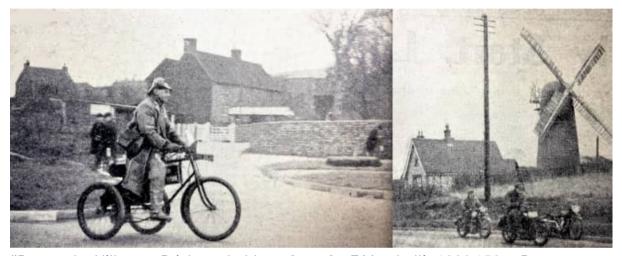
This view of the Scott shows the shield protecting the engine from mud and water, and also the hollowing of the sides of the petrol tank.

near-side of the machine is the long rear brake pedal, which is situated conveniently under the rider's left toe. Both brakes were smooth and delightfully 'spongy' in use. The rear brake was excellent under all conditions, but for really fast work a little more power in the front brake would have been desirable. The steering and road-holding of the Scott were of a high order. Although a large-section front tyre was fitted, the steering was light at low speeds and positive at high cruising speeds, and only when approaching the maximum was the steering damper brought into use. On rough roads the rear wheel had a slight tendency to hop, but at no time was this tendency bad enough to disconcert the rider, even when tackling twisty and bumpy roads. The cornering of the Flying Squirrel was extremely good, and permitted high-speed 'curve-swerving' with perfect safety. A magneto cut-out is part of the Scott's standard equipment; its correct use is for stopping the engine with the throttle open, and when this is done, starting from cold is a simple matter. The lubrication system of the Scott is, of course, of the plain mechanical pump type, and as the machine was new a generous oil setting was given. Nevertheless,

over a fairly large mileage the oil consumption worked out at approximately 800mpg. Petrol consumption at a maintained 40mph was 69mpg. One feature of the Scott that can be criticised is the rear stand, which is of the old-fashioned clip-up type. It requires a long and hearty pull to get the machine up into position. Other than this small feature there is little to criticise, and it may be said that the Scott provides high-speed motor cycling with a smoothness that cannot fail to delight every owner."

"ANYONE RIDING ACROSS Epsom Downs early last Sunday would have been met with an extraordinary spectacle. Through the steady downpour of rain, dim figures could be discerned pushing, heaving and pedalling frantically. Willing helpers pushed and pushed until they became no longer willing. Closer inspection would have revealed that all this energy was being spent on an amazing variety of antique motor cycles. Yes, it was the scene at the start of the Sunbeam Club's annual Pioneer Run—the seventh of the series. The rain was doing its worst to the various' delicate ignition systems and, while normally these old machines can do their bit in no uncertain manner, the appalling weather conditions was really finding out the weak spots. As zero hour approached the pushing and pedalling became more frantic. AE Cooke (1902 700cc Kerry) was the first man off and also the first to give up—with chronic belt-slip within the first mile. E Marshall, on the oldest model in the run—an 1898 150cc Beeston tricycle got away in grand style, followed by HI Langford (1903 198cc Singer). The first part of the run was fairly easy. The route led to Burgh Heath, where the main London-Reigate-Brighton road was joined. The high wind and the rain and the long pull up to the top of Reigate Hill caused plenty of fun. C Emmans (1904 235cc Kerry) was soon in trouble with his carburettor and ignition systems, while RC Rowland (1911 500cc Premier) and N Cox (1910 350cc Royal Enfield) were getting serious belt-slip. JF Sloan (1910 350cc Peugeot) stopped at Kingswood with a broken exhaust-lifter. Having remedied this trouble, he got to Crawley when an inlet valve cotter sheared—and yet he managed to finish. On the long climb up to the top of Pease Pottage, LF Cook (1903 300cc Kelecom) came to a halt to 'fix' his petrol tank, which had broken adrift. Surprisingly little trouble was caused by the hill. H Marians (1912 498cc P&M) romped up at speed, and E. Baker (1913 300cc Royal Enfield) actually emptied a tin of oil into his oil tank without stopping. RN Judd (1912 750cc Wilkinson sc) found the gradient caused a little steam to appear out of the radiator, but otherwise he romped up easily in top gear. One or two riders stopped for petrol, but apart from that there were few stops, though EL Taylor (1909) 500cc Brown) had a skid and came to a hurried but momentary halt. After the descent of Handcross the rain ceased and soon the roads were dry. Pyecombe Hill caused practically no trouble and, surprising to relate, very little pedalling seemed necessary. At the Pylons a check was taken—the only one in the run. After reaching Patcham the route left the main road and proceeded towards the finish at Devil's Dyke. Between these two places there lurked a really steep hill, guaranteed to shake most old-timers, but one after another the ancient models reached the summit with practically no trouble at all.

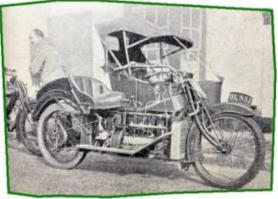
A Schlienger (1904 277cc Stanley) came to a momentary halt and AM Ruff (1912 500cc Triumph) experienced belt trouble—but these were exceptions. The performances of the old machines up this gradient were indeed remarkable. E Marshall scarcely used the pedals of his old single-geared Beeston tricycle, while GRW Cruddas (1904 Kerry-AKD), PR Crittall (1902 300cc Hobart) and P Tester (1902 250cc Kerry) romped up. Clifford Browne's 1906 250cc P&M forecar showed a surprising reserve of power, while NR Illingworth (1913 439 cc Royal Enfield) looked as if be were out to put up the best time of the day Two miles farther on lay the finish at the Devil's Dyke Hotel, where competitors parked their machines in the bright sunshine. Thus ended another very successful Pioneer Run."



"Pyecombe Hill, near Brighton, holds no fears for E Marshall's 1898 150cc Beeston tricycle—the oldest machine in the run. (Right) "Only another two miles to go! A pioneer with his observer right on his heels passes a picturesque windmill on the final stretch."

"REX JUDD, the erstwhile Brooklands rider, was responsible for the idea. 'How would you like to have a run on. my latest model?' he had asked, going on to explain that it was a four-cylinder with shaft-drive and rear-wheel springing. Innocently I fell into the trap, half expecting something really ultra modern and not just a conversion. Imagine my astonishment on arriving at Chez Rex at Edgware to see a real old warrior of massive proportions awaiting me. It was a 1912 Wilkinson, complete. with a 'period' sidecar, a perfectly hideous hood and a fully—I was almost going to say 'floating'—sprung sidecar wheel. But appearances were deceptive, and in reality the Wilkinson was amazingly advanced for its time. For example, it has four separate water-cooled cylinders, a radiator complete with fan, three speeds, and a most extraordinary starting handle, mounted to one side of a genuine armchair type of saddle. To start, one stands up on the footboards and, taking a firm grip of the handle, pulls upwards. Rex did so and the old Wilkinson immediately came to life and settled down to a silky tick-over. It was all rather uncanny. The controls are almost identical with those of to-day, except for the clutch pedal and a rear brake lever situated on the off side of the saddle. After being shown how the controls work I was allowed to take over. Rex, in the meantime, wheeled out his air-cooled straight-four Pierce-Arrow, of about the same age as the Wilkinson. A friend of his, Mr E Marshall, had set out a few minutes beforehand on a really ancient model, a 1898 Beeston tricycle with a single gear and 150cc engine. Rex's idea was that we should pioneer as far as a rendezvous on the far side of Elstree, where we could forgather for lunch. He led the way and promptly left us, for the old Wilkinson could just about just about manage 35mph on the level, and under favourable conditions, 40mph, while the Pierce-Arrow seemed to be capable of at least 60mph. However, we plodded along, the engine running with extra-ordinary smoothness. Hills slowed us down to 20mph, and Brockley Hill actually brought us down into second gear, but thereafter it was plain sailing—provided due allowance was made for the brakes, which certainly were not quite up to 1937 standards. In a surprisingly short time we pioneers arrived at a real old English inn, where the Pierce-Arrow and the venerable Beeston awaited us. After lunch and an exciting game of darts, played between yarns of old times, I was allowed out on Mr Marshall's pet, the Beeston tricycle. But all too soon it was time to return, and after flooding the carburettor the old Wilkinson was soon purring away. Off we went again, reaching the terrific speed of 40mph down a by-pass—all the more terrifying on account of the long handlebars which appeared to wave in the breeze. However, all's well that ends well, and three old-timers reached Chez Rex with no further trouble. For me it had been an exciting experience, and one which had left me thinking that the world is truly topsy-turvy. Here we are with multi-cylinders, shaft-drive and rear-wheel springing slowly coming into fashion, and there is the old four-cylinder Wilkinson incorporating all these ideas and more. Yet it was built over a quarter of a century ago!"—Ambleside





"Four separate water-cooled cylinders, three speeds, shaft-drive and rear-wheel springing are only a few of the features of the 1912 Wilkinson." (Right) "Two 'fours' and a 'single' foregather outside a quaint old English inn. In front is the Beeston tricycle and behind are the Wilkinson and Pierce-Arrow machines."

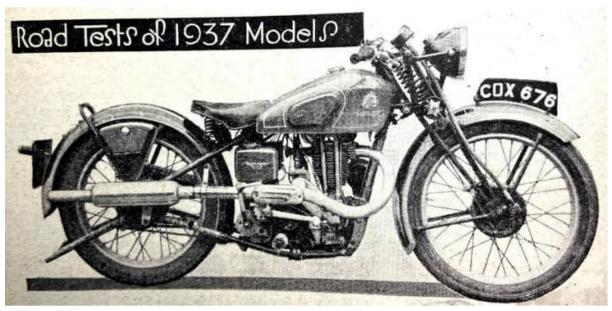
"SEVERAL TIMES I HAVE seen articles about our fearless and expert motor cycle cops in the USA. I imagine many English riders think they are a combination of James Guthrie, Jimmy Simpson and Joe Petrali, the last-named being our national champion. However, any of your second-rate trials rides could ride circles around our so-called 'speed cops'. Of course, there are exceptions such as the Highway Patrol Team of Pennsylvania—they hare an excellent stunt show—but I'm speaking of the large majority. As far as their 'powerful big twins' are concerned, very few of them could do an honest 80mph. You hear of 'skids' and 'broadsides' executed by the dashing cops, but most of them would faint if they really got into an accidental broadside. I write from personal observation of them, and am sure the motor cyclists of this country will bear out my observations. I wouldn't exchange my 1936 'International' Norton for any American police machine or any American motor car as far as that goes.

Clark S Trumball, Washington, USA."

"IN THE DAYS OF limestone roads I placed the first white line in England on the main road facing my business premises, The Ever Open Door, the old toll-house in Lancaster Road Hornby, on the main road from Bradford to Morecambe. The white line was put down in chalk, become when two farm lads met at my corner the wheels of their carts caught one another, and the result was an accident. So the white line was born in 1916. I our warned by Mr J Boardman, road surveyor to the Lancashire County Council, that if I persisted in tampering with the roads by chalking or limewashing or cementing, I would get into serious trouble. In 1921 I was offered white paint and a brush by the same gentlemen to keep the good cause going. In the year 1919 I received a letter from His late Majesty King George, who sometimes passed my way, informing me that the white line was a good precedent which should be widely copied. The letter was signed 'Clive Wigram', and I still have a copy of it. I hope I am correct in saying that the second white line was at Thaxted, in the south of England, and the third at Stocksbridge, Keighley, Yorks.

## John B Willacy, Lancaster. "

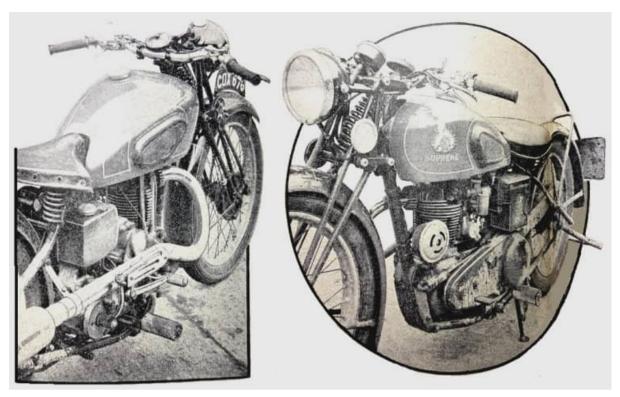
A CORRESPONDENT IN the Blue 'Un presented evidence that the idea of white lines on roads was first mooted by a chap named Scantlebury in 1920. The plan called for footwide strips of white stone to be set into the road surface.



"Without direct comparison it is difficult to realise that the OK Supreme Sports 70 is a 250 and not of larger capacity."

"BECAUSE EVERYTHING ABOUT the OK Supreme Sports 70 is so well proportioned, it is quite difficult to realise without direct comparison that the machine is a 250 and not a 500. The performance, too, is deceptive and well in keeping with the appearance of the machine. The riding position is most comfortable, and the position of the footrests is ideal for a rider of medium height. The correlation of the footrest to the gear pedal makes very little movement of the foot necessary when changing gear. The brake pedal, however, is situated a trifle too far forward. The handlebars are sporting in type but extremely restful to the wrists. Thin grips are fitted, with racing-type levers. Provided the carburettor was flooded and the ignition fractionally retarded, the engine could be started from cold with one dig at the kick-starter. Possibly because of its newness, the engine was somewhat stiff and it needed rather more than the usual amount of energy when kicking it over. Once warmed up, the engine could be set by the throttle to give an admirable tick-over. The ignition lever had an extremely useful range of control. No doubt on account of the comparatively high compression ratio—nearly 7.5 to 1—the engine called for slight retardation of the ignition when ruining slowly in a high gear, even when an ethylised fuel was used. Partly for this reason and partly on account of certain harshness in the transmission, the minimum non-snatch speed in top gear was not lower than 14mph. However, above 20mph in top gear the power was delivered sweetly and without any pronounced vibration period. Although the top gear of 6.1 to 1 is somewhat low by 500 standards the lively engine never for one moment gave the impression that it was turning over unduly fast, in spite of the surprisingly high cruising speeds which could be maintained. On the contrary, at times it gave the impression of being slightly overgeared. The three indirect ratios are closely related and 'slick' changes could be made without concentration on the part of the rider, but changing from third to

top gear called for a marked drop in the engine revs. Third gear is a very useful ratio and enables the machine to accelerate rapidly up to 50mph. At low engine revs the mechanical and exhaust silence was excellent, but above 40mph the exhaust developed a. slight tang in its otherwise subdued note, and a distinct clatter appeared to emanate from the cam gear. The OK Supreme could be held down to a steady 50mph for as long as conditions permitted. It appeared to revel in hard work and would tackle hills with the zest of a machine of bigger capacity. In fact, at times it was difficult to appreciate that it was not a 350—an impression not only suggested by its performance but also by its handling and road-holding. Corners could be taken with the utmost confidence, and there was a complete absence of pitching or wheel-bounce over uneven, surfaces. The riding position is excellent for fast road work, and, given suitable tyres, the machine would doubtless prove an admirable trials model. As it was, with a ribbed front tyre, the steering through mud and grease was surprisingly good; and the engine had ample power in hand for cautious riding tactics in second gear. Part of the test was under-taken over snow-covered roads, yet at no time were any skids experienced. From the performance data it will be seen that the mean maximum speed of four runs (timed in both directions over a quarter-mile) was 63mph, and in third gear 58mph was attained. Under suitable conditions there is no doubt that 65mph could be easily obtained, but owing to the absence of a mudguard pad it was, difficult for the rider to assume much more than a semi-racing attitude—and at these speeds wind resistance begins to play a big, part in the case of a 250. Acceleration through the gears was particularly good, the Burman gear box permitting snappy 'racing' changes with absolute certainty. The clutch was both sweet and light, and completely free from 'drag'. Similarly, the brakes were smooth and delightfully 'spongy' in application,



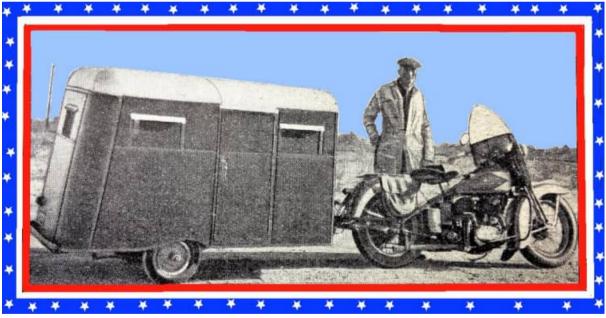
"A folding kick-starter, foot gear change and an upswept exhaust pipe are all part of the standard equipment. Note the voltage-control housed under the saddle." (Right) "The dynamo is mounted beneath the magneto and driven by a chain running inside the primary oil-bath case."

although the back brake was apt to lock the rear wheel when a 'crash' stop was. attempted. Despite its sporting performance the OK Supreme was exceptionally economical as regards petrol consumption. The fuel consumed (using an ethylised brand) at a maintained speed of 40mph amounted to 118.4mpg. This means that the journey. from London to Edinburgh could be accomplished without refuelling, for the petrol tank holds 3½ gallons. Because of the newness of the engine, which is lubricated on the total loss system, pump was set to give a generous supply of oil, and, therefore, the figure has little relation to that which would be obtained under normal conditions. As would be expected with a sports machine, the equipment includes an upswept exhaust pipe. There is, however, a sturdy crankcase shield as well. The standard equipment also includes a 6-volt separate Lucas dynamo (mounted under the magneto and driven by a chain running in the primary oil bath), complete with voltage control. The accumulator is so mounted that it can easily be pivoted outwards for inspection or topping-up. Summing-up, the lasting impression of the 245cc 0K Supreme Sports 70 is that it is a true rider's mount—a 'big' 250 with a performance that is well in keeping with its deceptive appearance and 'feel'."

"ALTHOUGH THERE ARE 44,000 motor cycles is Holland, only 1,132 of them are sidecar outfits." "THE RAC RECOVERED £5,000 for motor cyclist members involved in accidents last year."

"HM THE KING will be patron of the 22nd Bicycle and Motor Cycle Show at Earl's Court from September 22nd to 29th."

"THE CORNET MOTOR CYCLE CLUB of Omaha, Nebraska (USA) wants to know why British riders make such a fetish of keeping their feet on the rests. In Nebraska they find that dropping a foot often averts a nasty spill, especially on ice and snow, and they regard footing as a schoolboy regards lies, as a very present help in trouble. But so do we, buddies and far sooner than spill, 99.99% of us are quite ready to stick out a foot, or even two. But when we want to find an absolute winner in a one-day trial contested by lads of high average skill, or when a club wishes to curtail the number of silver pots awardable in a six days trial, some arbitrary factor has to be introduced, and 'footing' is the best factor we can invent. Moreover, these one-day trials have created a convention that the lad who drops a foot or feet is a dub, rabbit, or—whadd'ya call 'em in the States? So when in public we all keep our feet up it we can; but in any lonely slide, down go the number elevens if and as circumstances may demand. We act precisely the same as American enthusiasts in such emergencies."—Ixion



"Two-wheeler homestead: This American enthusiast, Otto Gerling, is touring the United States with his home-made motor cycle caravan, which has such luxuries as heating and a radio set. The picture was taken at Phoenix (Arizona)."

"QUITE WHAT THE EFFECT of the widely announced split between the National Speedway Association and the Auto Cycle Union will mean I do not know. Speaking personally, I consider that it would not be at all a bad thing if the ACU had nothing further to do with speedway racing, which, after all, has very little indeed to do with pukka motor cycling. Maybe it is useful to the ACU from the financial aspect, but the

less the ACU has to do with things akin to the circus the better I, for one, will be pleased. Consequently, I do not worry very much—if the Speedway Association breaks with the Union once and for all it will probably be a very good thing; the latter has quite enough to do to look after the sport properly."

"THIS IS THE NEWS that came the other day from the Nürburg Ring, Germany's wonderful road-racing circuit in the Eifel Mountains: 'Nineteen (yes, nineteen) riders, two mechanics, and a 'boss' are here; they are riding four solo DKWs and two sidecar outfits in shifts, day and night, until they have chalked up 50,000km. There is half a foot of snow here; it melts in the day and freezes at night, but that means nothing to these boys—they have to ride under any conditions.' That, dear readers, is how they put experimental DKWs through their paces!"

"DKW motor cycles, which were described and illustrated in our recent report of the Berlin Show, will in future be marketed in Great Britain by Pride and Clarke of 158, Stockwell Bond, London, SW9."

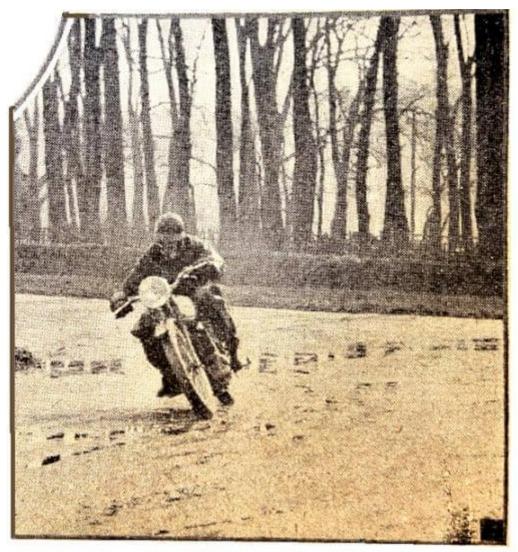
"ROAD-RACING ENTHUSIASTS will be sorry to learn that one of Germany's most brilliant, riders, Oskar Steinbach, met with a fatal accident near his home at Mannheim last week. Steinbach, who was only 24 years of age, was the 1935 German road-race champion in the 350cc and 500cc classes. In that year, without any previous experience of the Isle of Man circuit, he finished fifth in the Senior TT at 78mph—a wonderful performance. Last year, he came sixth in the Senior Race on an NSU at 75mph. On the Continent he rode successfully on the big DKW. There is no doubt that the sport has lost a rising star."

"SINCE THERE IS NOT to be a Stock-machine TT, the manufacturers of the Triumph, one of the strongest supporters of this type of event, have decided to have an event of this character on their own. It is to take the form of a high-speed trial under official ACU observation, and, all being well, will be carried out this week...The Triumph Engineering Company has asked the ACU to take from any of 40 agents who are known to carry stocks of Tigers a 250, a 350 and a 500. These machines are to be transported to Donington and...run in for approximately 100 miles [after which] the machines are to undergo a three-hour high-speed test over the inner circuit at Donington, using standard petrol and oil. The 'Stock-machine TT' ended, the machines are to be taken to Brooklands for an officially timed flying lap. The whole point of the test is that these machines have already been sold to agents—they are production



"The three machines lined up on the inner circuit at Donington. Left to right: Alan Jeffries (350cc Triumph Tiger), HS Perrey (of Triumphs, who was in charge of the test), FE Thacker (250cc Tiger), EB Ware (the ACU official observer) and FWS Clarke (500cc Tiger)."

models which any or everyone can buy—and apart from the soundness of their design, the makers are testing the consistency of their production...Tuesday came, and it was found that the road circuit at Donington was in a treacherous state owing to large patches of ice...The preliminary preparations were made to the machines; these included exchanging the high-level exhaust pipes for those of the low-level type. Had the chosen machines happened to have low pipes no alteration would have been made, and it should be borne in mind that either type is a standard fitting...As the ice thawed, rain set in and turned into a steady downpour. To complicate matters the 500cc model developed a fault in the oil-pump, which, probably because of the presence of dirt, refused to exhaust properly. It was dismantled, cleaned and replaced; no new parts being necessary...After lunch, the machines were given their heads a little, and each rider piled up a good number of laps, full throttle being used frequently. Finally, in the late afternoon, the machines came in and were locked up, after having been wiped down —it was still raining heavily—and re-fuelled. Wednesday dawned bright and, much warmer, and the machines were taken out and warmed up over a preliminary lap or two. Then, at 9.30am, the high-speed test began. Thacker rode the 250, Jefferies the 350 and Clarke the 500. The timing was attended to by Mr Nixon, of the ACU. For the riders, it was a question of full throttle, but everything went all right, and all the machines kept well above the predetermined minimum schedule. Then, on his 15th lap, Clarke pulled in to the pit with the same lubrication trouble as he had previously experienced. Quickly the crankcase was drained and "the pump

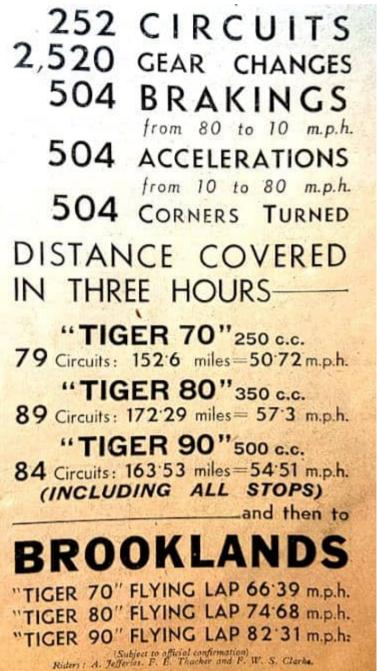


"This

glimpse of FE Thacker heeled over on one of the corners shows the wet nature of the course."

dismantled and cleaned, while to make certain the ball-valve was making seating properly, it was given a tap on the seat with a punch. The pump was replaced, more oil was added to that left in the tank, and Clarke restarted after a delay of about eight minutes. At the end of one hour the 250cc Tiger had completed 27 laps, the 350, 30 laps, and the 500, 26 laps. After another half-hour had passed, the respective number of laps was 39, 44 and 41, and the Tiger 90 was now going well. The other two models had been running beautifully, especially the 350, but heavy rain had set in, drenching the riders and slowing them fractionally. Ill-luck dogged the big machine, for on lap 43 the high-tension lead came adrift at the magneto end, causing a further delay of eight minutes. Soon after this, some excitement was caused by Clarke and Jefferies racing together into Starkey's Corner. Clarke got into a wobble and was forced to take to the

grass, where he skidded to the ground, Fortunately, nothing was bent and the machine carried on.. So the test went on, each man calling twice at the pit for fuel, though no oil was added, except in Clarke's case, as already described. At last Mr Ware held out the chequered flag, and the machines came in. They finished beautifully clean, the two smaller ones showing not a trace of oil leakage, and the big one just a slight drip from the rocker box. At the end, all the lights were in order and the horns were working properly. The 500 showed slight blueing of the exhaust pipe, but the exhaust pipes of the other two models were not discoloured in the slightest degree...Clarke on the 500 had covered 84 laps in 2hr 58min 29sec; his average speed 54.4mph. Jefferies had covered 89 laps in 2hr 58min 16sec, giving an average speed of 57.4mph; and Thacker had covered 79 laps in 2hr 57min 56sec, an average speed of 50.72mph. On Friday the final tests, those of maximum speed, were carried out at Brooklands; the 250cc Tiger covered a flying lap at 66.39mph; the 350 at 74.68, and the five hundred at 82.31." Triumph's efforts were rewarded by the Maudes Trophy.



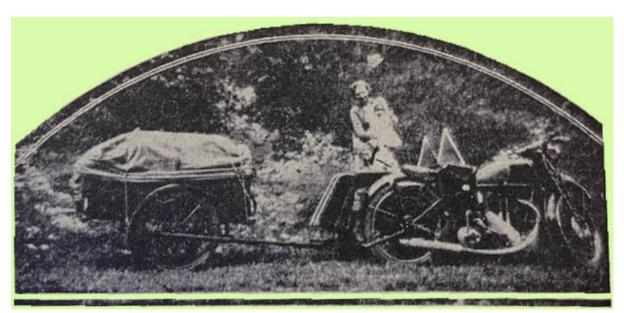
Triumph lost no time in

advertising the outcome of the 'stock TT' run—these statistics were part of a double page advert in the Blue 'Un.

"A READER TAKES STRONG exception to my mild suggestion that weakly men of 40 have some excuse for relinquishing such exposure to weather as riding a motor bicycle involves. He is 61 years of age, and has ridden regularly summer and winter since February, 1904. He is inclined to wheeze and be short of breath, but when an attack takes him, he gets out his 'Beam, chases off to the nearest by-pass, and does a few miles at 60mph, taking long deep breaths at this speed, with the invariable result that he returns home leaping like old Grandpa Kruschen. He has four sons, all of whom drive

saloon cars, and he pities them! They do not share his immunity from colds and 'flu."— Ixion

"MANY FOLK (MOSTLY ELDERLY or purely pedestrian) aver that motor cycling is dangerous. All I can say is that, starting as an utter and complete novice on very bad machines, I have covered well over half a million miles without ever injuring anybody, and without ever being injured myself (unless an occasional trifle of gravel rash is to rank as 'injury'). This although I have done a great deal of racing and trials work, and even of record-breaking. The alleged danger factor in all motoring is in my opinion a personal and human factor, and not directly related to the selected vehicle. It is true that the motor cycle is inherently unstable, as it cannot remain vertical of its own accord. This may or may not be a disadvantage. In the early days of aviation the experts went all out for an inherently stable aeroplane till they found that if you could throw a 'plane about freely you could extract yourself from situations which would be fatal to a too stable machine. The motor cycle is the easiest road vehicle to hoike out of a tight corner, first, because of its instability, and, secondly, because of its extremely narrow width (is that Irish?). The man or woman who is unsafe on a motor cycle will be definitely less safe on four-wheelers up to a certain age. (Above 60 one is apt to become physically clumsy.) I will go even farther, and say that a youngster who is unsafe on a motor cycle will normally be a jay-walker and a. jay-cyclist, for the qualities which make a good motor cyclist are equally essential to survival while walking in city streets."— Ixion



"Do you ever pine for plenty of plenty of luggage space so that you can carry a really luxurious camping outfit? The owner of this Triumph sidecar has solved the problem by attaching a trailer—and everyone IS satisfied, including baby."

"THE FAULT IS NOT in our stars, but in ourselves. The remedy is not in our Governments, but in our conduct.'—Mr. Hore-Belisha in a speech on the road problem."

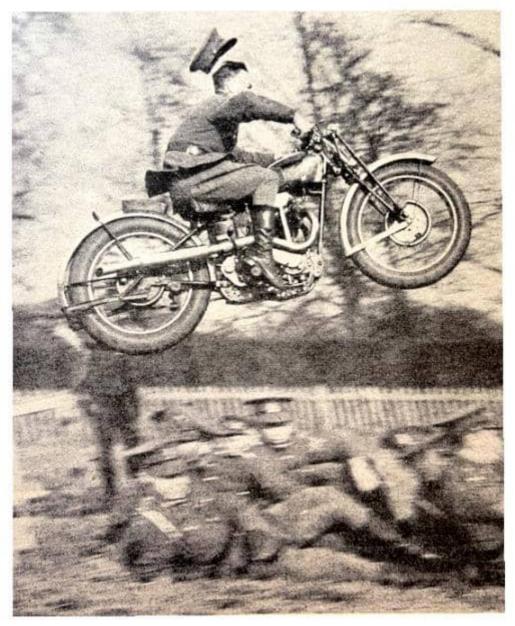
"AN AMERICAN MANUFACTURER of pneumatic tyres for agricultural tractors recommends that the inner-tube is partly filled with water and then inflated normally."

"THERE WERE 63,270 motor cycles registered in Belgium at the end of 1936."

"A SIDECARRIST WHO was 'gouged' while driving guests to his wedding was fined 5s at Gloucester."

"A FRENCH MANUFACTURER is to make and issue a film showing the pleasures. of motor cycling."

"NEW MODELS IN the French Monet-Goyon range will have six-speed gear boxes and spring frames, according to an advance report."



"The Hat

Trick. Query: Why did this despatch rider's hat leap off his head as he flew through the

air. Answer: Air pressure largely, of course, but perhaps partly because he wasn't poised on the rests to take the jolt when he hit the ramp. The picture was taken during practising by the City of London Signals despatch riders, who this year will be taking part in the Royal Tournament."

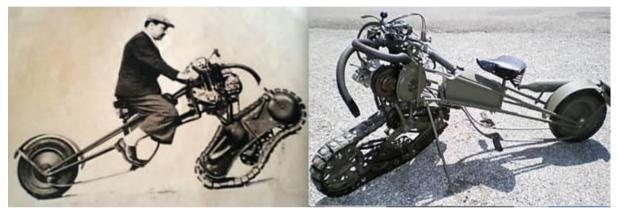
NEWS FROM JAPAN: The petrol-starved militaristic Japanese government banned motorcycle clubs. They also ramped up the import duty on motorcycles by more than 700%. Soichiro Honda set up in business manufacturing piston rings. Meguro, already well known in Japan for proprietary engines, built its first bike, a 13hp 500cc ohv single. Kawasaki, now producing everything from steel to locomotives and rolling stock, went into aircraft production. Having come up with the 175cc two-stroke Asahi in 1933 Miyata was producing 150 units a month and was exporting them to Brazil, Mexico, Peru, Argentina, Venezuala, China, Formosa, Korea and the Dutch East Indies. They were usual sold through bicycle shops; Miyata set up a dealership in occupied Shanghai. There's cheek. Asahi one-make clubs sprang up in Tokyo, Osaka and Kobe but following Japan's invasion of China petrol was in short supply and clubs were suspended by the government. Suzuki, still busy making looms, looked at the lightweight car market but the Japanese military government had banned all 'nonessential commodities'. Having built VL 1,200cc side-valve Harley-Davidsons under licence, using equipment supplied by Harley, Rikuo was busy producing them for the Japanese army as the Type-97. The Japanese governmeny raised import tarffis by more than 500% and completed a forced buyout of the Harley operation in Japan.



The Rikuo copy of the 1,200cc Harley VL morphed into the Japanese army mainstay, the Type-97.

SWISS INVENTOR ADRIEN Mercier had a factory in France produced 50cc motocyclettes with Lavalette engines, as well as 125/175cc motor cycles with French Ydral engines. But her had a thing about tracked motor cycles and presented a

prototype to the French army. (This wasn't their first experiment with half-tracks; check out the Rene Gillet of 1934.) The Mercier was powered by a 350cc ohv JAP with a French Soyer three-speed box and could do 40mph. A fan helped cure overheating problems and the front-wheel-drive half-track proved capable of tackling acclivities up to 45°. However a large armoured shield compromised its cross-country performance. Mercier duly produced a lighter version which was tested over a 90-mile cross-country route against a standard French WD solo. The Mercier was slower, juicier, with poorer roughterrain performance. The military asked Mercier to produce a third prototype with a 540cc Aubier Dunne engine and other improvements. Mercier declined; in his words, "he spent a lot of energy and money".



The Mercier half-track was out-performed by a conventional solo. However at least one exmple survives; this one turned up on E-bay a few years back.

"QUESTIONS OF MECHANICAL and exhaust noise bring up once again the subject of power per cc. Is too much thought still being applied to the amount of power extracted from each unit of engine capacity? We are certain that this is so. For all that is said and written, the vast majority of motor cyclists do not travel fast. Some travel noisily, and this gives rise to the thought that they are speedsters. The truth is that very, very few motor cyclists obtain any real value from the high-speed capabilities of their machines. Many talk glibly of 70, 80 and 90mph, but to-day the majority of motor cyclists travel slower, and not faster, than the drivers of cars. Real silence can only be achieved by reducing performance at the top end of the speed range, or by the employment of smaller cylinders and more of them. The line on which the industry should work is the development of multi-cylinder motor cycles for high-speed touring, and touring type singles for those who neither demand nor perhaps can afford the 'multi'. The continued concentration upon high-compression single-cylinders of large capacity jeopardises the whole future of motor cycling."

"ONE OF THE MOST complicated sets of traffic lights in London is being installed at Blackfriars Bridge, EC. There are 35 light standards in all."

"THE LORD MAYOR OF LONDON suggested last week that motorists should have their vehicles confiscated for parking offences and redeemed only on payment of heavy penalty."



The original caption printed on this propaganda pic reads: "Salemi—19 August. At the end of the grand manoeuvres the Bersaglieri motorcyclists parade for the King-Emperor." Italian king Emmanuel III was promoted to King-Emperor following the Italian invasion of Ethiopia. By appointing Mussolini as prime minister Emmanuel had handed his country to the fascists. Salemi is the village in southwestern Sicily where Giuseppe Garibaldi announced the annexation of Sicily on May 14, 1860. The Bersaglieri are riding Guzzis and they have wonderful hats.

"TIP FROM THE BLUE: "If you're caught by the police, he polite to the officer. If be is a constable, call him sergeant; if he's a sergeant, call him inspector."—The Chief Constable of Stoke-on-Trent."

"BMW recently tested a new system of rear-wheel springing by a rigorous high-speed test at Monza. Two special 500cc machines, ridden by Ley and Gall, were used."

"MR HORE-BELISHA TELLS us that a stationary car in the City of London occupies space worth £20,000, By the same scale of land values, the average stationary pedestrian covers ground worth £1,666 13s 4d."—Letter in *The Daily Telegraph*."



"Simplicity and efficiency are but two of the 125cc Carlton's many good features."

"ONE SHORT RUN on the new 125cc Carlton would be sufficient to convince anyone that here is a lightweight which is full of life and completely lacking any of that fussiness sometimes associated with machines of the utility class. It is a lively little motor cycle which, while excellent for town conditions, is also admirably suitable for longish runs into the country. In design the Carlton is quite conventional. It is fitted with one of the latest l25cc Villiers engine-gear units, while the specification is unusually thorough for such a low-priced machine. Standard fittings include efficient legshields, a carrier, Villiers direct lighting and a three-speed gear box. The tank holds a surprisingly large quantity of fuel. It takes two gallons of petrol and one pint of oil, which is the recommended proportion for the petroil mixture. The riding position is comfortable and the saddle well placed in relation to the handlebars and footrests. Pivoting about the footrest bar is the brake pedal, the height of which can be set by simply slacking off the bolt securing the footrest bar to the frame and turning the footrests as required. Unfortunately, the right-hand legshield somewhat restricts the movement of the pedal, which in consequence has to be set unnaturally high and rather too near the carburettor. Apart from this one criticism it is difficult to find fault with the Carlton. Starting was of the highest order. If the choke on the air inlet was used to stop the engine last thing at night, a certain first-kick start the follow-ing morning was ensured. Even this precaution was hardly necessary, for the engine was delightfully easy to start at all times. When warm it will start With comparative ease by pressing down the kickstarter be hand, and will settle down immediately to remarkably satisfactory idling. The gear lever is mounted directly on the gear box, and, although its range of movement is below the level of the petrol tank, it comes reasonably well to hand. No difficulty was experienced in selecting the gears—seemingly there is a strong selector spring and they more or less find themselves. At all times the gear box was extremely easy to use and

dead quiet in operation. The clutch is both light and smooth, and, although running inside the primary chain case, it proved completely free from drag. Because of the little engine's surprising power at low revs in top gear it is almost possible to drive it as one would a single-gear model. At above 8-10mph in top the engine shows such a ready response to the throttle that it is hardly necessary to change down into into second gear when rounding street corners. Again, second-gear starts could be accomplished without any harmful juggling with the clutch, while bottom gear is so low that restarts could be made on a 1 in 5 gradient with practically no slipping of the clutch. By full use of the gears the acceleration up to 40mph was nearly as good as that of some machines of four times the capacity, and in the standing-start acceleration test it almost reached its peak performance within a quarter of a mile. The maximum speed in top gear was in the neighbourhood of 45mph, the actual mean speed of four timed runs over a quarter of a mile being 42.2mph. At first glance these figures may not appear to be particularly high, but it must be borne in mind, first, that the Carlton is of only 125cc, and, secondly, that it can be cruised all day long at 40mph without trace of tiring or tightening up—or for that matter, any vibration. Above this speed the direction and strength of thee wind play an important part. On one occasion 47mph was reached with the rifler sitting up, while 38mph was the best that was attained in the other direction. Undoubtedly the little machine's best cruising speed was in the neighbourhood of 35mph. Under 25mph it began to four-

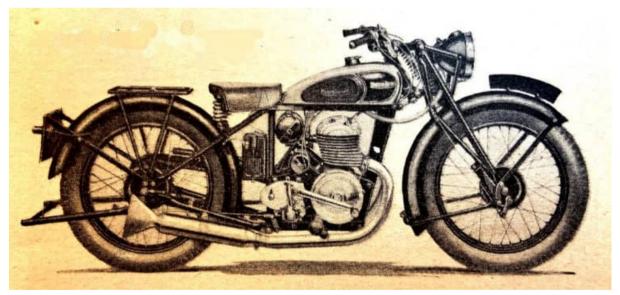




"Legshields. a large saddle tank, carrier, a three-speed gear box, with folding kick-starter, are all part of the standard equipment." (Right) "A sturdy loop frame houses the latest type of 125cc Villiers engine-gear unit."

stroke, but it could be throttled down to the almost unbelievably low non-snatch speed of 6mph. As with all lightweight machines, the handling and road-holding of the Carlton are magnificent. The steering is on the light side, but always very safe. Quite one of the most surprising features of the Carlton—in a sense this little machine is full of pleasant

surprises—is the quality and efficiency of the brakes. They are well up to the very best standards and capable of pulling the machine Up in 36ft from 30mph in top gear, without locking either wheel. Partly on this score and partly on account of the admirable road-holding qualities, the machine inspires every confidence when ridden in the rain or over greasy surfaces. Many miles were covered during the course of the test over wet roads; the efficiency of the mudguards and legshields was testified by the remarkable, cleanliness of the machine. There was, however, one small point worthy of criticism. The position of the carburettor (projecting at right angles to the cylinder, on the off 'side) caused fine drops of petroil to accumulate on the rider's leg after a longish run. No doubt the slight blow-back inherent in most two-strokes was the cause of this small inconvenience. Naturally the maintained speed of 40mph (em-ployed as a standard for all The Motor Cycle fuel consumption tests of 1937 models) is really too high for 125cc lightweights; even so, the Carlton acquitted itself with a carefully checked consumption figure of 86.8mph. At 30mph, which no doubt would be the normal cruising speed of the Carlton under everyday conditions, the consumption amounted to just on 100mpg—a figure well in keeping with the economical nature of this little machine, the initial cost of which belies its surprisingly efficient performance both for utilitarian purposes and for pleasure."



"As a result of requests received for the 249cc Villiers-engined Seagull fitted with a four-speed gear box and foot change, Francis-Barnett has introduced a standard model on these lines, called the Seagull G/47 and priced at £36. The brake pedal is on the left instead of the right, and there are a new type of kneegrips and a fresh battery position."

"ONE OF THE LATEST efforts to produce a satisfactory machine which will fill the gap between the bicycle and the true motor cycle is that of Mr GH Jones. He is a firm believer in the future of the motorised bicycle. The machine he has designed is an exceedingly neat and sturdy piece of work, following the normal lines of a modern bicycle having an open frame. Into this frame is mounted a compact engine unit,

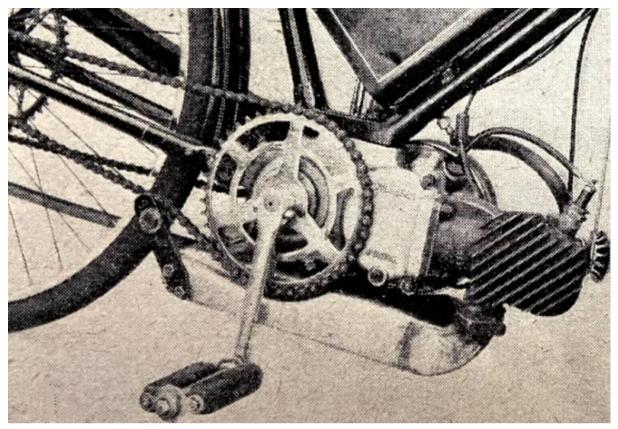
designed by Mr Jones and built in conjunction with the Villiers Engineering Company. This engine is more than usually interesting. The diagonally finned cylinder is mounted horizontally and pointing forwards. Of 98cc capacity, the engine is of the normal two-stroke type and is lubricated by petroil. Mounted on the upper side of the head in a very accessible position is the sparking plug. The single-lever carburettor is on the near side and is provided with a strangler for easy starting purposes, the strangler control being conveniently placed on the side of the petrol tank. A flywheel magneto is fitted on the end of the crankshaft. This crankshaft is supported on separate ball and roller bearings, and between these lies a chain sprocket, the whole of this part of the mechanism being enclosed in the crank-case casting. Behind this lies the clutch casing, the drive to the clutch being by an enclosed chain from the first sprocket. The clutch is of the multiplate cork type and runs in oil, and the hollow shaft on which it is mounted runs on ball bearings. From this shaft the drive is taken by another chain to the rear wheel, this chain being protected by a metal guard and tensioned by a small jockey sprocket. A spindle runs through the centre



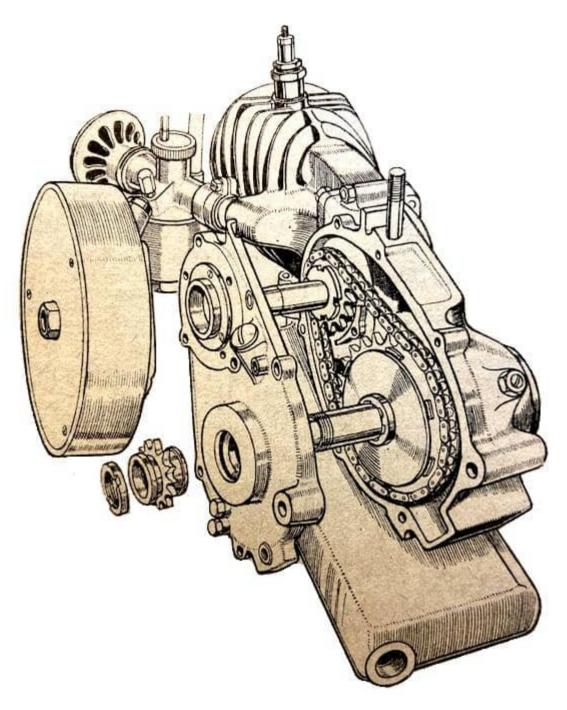
"The neat lay-out of the Jones motorised bicycle is apparent in this photograph of the near side. A special 98cc Villiers two-stroke engine is mounted horizontally at the base of the frame."

of the hollow clutch shaft and the pedal cranks are attached to each end of this spindle. The chain wheel for the pedalling gear is on the off-side of the machine. Beneath the engine unit is the cast aluminium silencer, which is rectangular and shaped like a shallow box, a pipe of small diameter leading the gases from the silencer to a point behind the rear wheel. The whole of the unit is in one piece, and may be removed from the frame by undoing only two bolts which clamp it very rigidly to the specially shaped bottom bracket. As already indicated, the frame is of the open type and has two tubes

leading from the head, one running to the seat tube and the other to the engine lug. Between these two tubes lies the wedge-shaped petrol tank, which has a capacity of about one gallon. The front forks are pivoted at the base of the steering head and the fork lug accommodates the lower end of a laminated spring, the upper end being held in a slot in the specially formed lamp bracket. The action of the fork is damped by friction shock absorbers. The brakes shown in the photographs operate on the rims of the wheels, but the production models will have internal-expanding brakes. Dunlop tandem tyres are fitted to 26in Endrick rims and a large soft-topped saddle is used. Head and tail lamps of Villiers' design are fitted, supplied with current direct from the flywheel magneto. On the handle-bars are the two brake levers, the clutch lever and the throttle control. At the moment the weight of the machine is about 861b, but this will be reduced. On the Road A brief test revealed several interest-ing facts. Engine vibration was absent at all speeds. The machine could be throttled down to a quick walking pace without the faintest trace of transmission snatch, and from this speed the engine would accelerate quickly and smoothly without effort. Hill-climbing was excellent, the engine dealing with normal main-road hills with consummate ease. At speeds of about 30mph the machine was found to be quite steady, while the spring forks effectively damped out road shocks over pot-holed surfaces. The riding position was comfortable and gave the impression that long distances could be covered without undue fatigue. At low speeds the exhaust note was well subdued, rising somewhat at full throttle, but mechanical noise was almost absent. Arrangements for the manufacture of this serviceable little machine are well in hand, and it is hoped to produce it at a price round about fifteen to sixteen guineas. The designer is GH Jones, 59, Addison Road, King's Heath, Birmingham."



"A close-up of the engine unit, showing the diagonally finned cylinder, the cast aluminium 'box' silencer and the jockey sprocket used to tension the rear chain."



"This

neat and sturdy petroil-lubricated two-stroke has been built by the Villiers Engineering Company to the design of Mr GH Jones for the Jones motorised bicycle. This view of the unit shows the clutch mechanism, the flywheel magneto and the cast aluminium 'box' silencer at the base of the engine. The deep diagonal cylinder finning will also be noticed."

"THANKS to the sort of weather that has blessed the whole country, and Derbyshire in particular, during the past few weeks, the date of the Derby and District MC's Bemrose Trial had a certain element of chance about it. One open trial, the Reliance, had already had to be postponed, and there were not a few people who wondered if the lingering

snowdrifts might not upset the scheme of things for Mr Secretary Craner and his men. But matters worked out rather better than that, for, although there was some snow about—and, of course, its after-effects—the hand of man rather than the fury of Nature proved the more troublesome. Since there is no wish to indulge in mystification this statement had better be explained at once. The fact is that whereas only one observed hill (Washgate) had to be eliminated on account of the conditions, two obstacles proved un-usable because permission to include them was not available. These deletions were the descent of Lumb Lane and the ascent of Blackermill. Thus the route was not quite according to the card, but it still remained a stiff trial, with 90 miles of assorted going rocks, mud, snowdrifts, snow-sodden grass and more rocks—and the three competitors who got round without loss of marks certainly proved their riding ability and the steerability of their models. Of JJ Booker (570cc Royal Enfield) and FH Whittle (598cc Panther sc), the trophy winner and the 'opposite class' winner respectively, it is rather futile to say that they deserve full marks, for they got 'em 'anyway! Starting on the southern side of Derby as the Bemrose does, there is rather a piece of easy main-road going in the early stages, and such hills as are included are not very serious. The observed drop down the slimy ruts of Lamb Lane might have been serious, for although the sky overhead was clear, the ground conditions were just a shade saucy. But a local resident decided to indicate pronounced disapproval of the only sport in which we hold our on in international circles, and so his lane had to be side-tracked."





DK Mansell (490cc Norton sc) tackling the rock-strewn gradient of Hollingsclough. He won the Syston Cup as runner-up in the passenger-machine class." (Right) "GS Hadfield (570cc Royal Enfield sc) looking anxious on Hollingsclough—as well he might in view of the atrocious surface of this famous Peak District Hill."

"MAY I ENCROACH on your valuable apace to pay tribute to the recent editorial article, 'Simple and Efficient'? The claims of side-valve machines are not often brought forward. I am, I admit, a side-valve lover—but I find them better for my purpose. I have a 500cc sv of a popular make, and I wont ever own another ohv. There are many reasons. Lately you have published letters about old machines. The Model H Triumph made its appearance shortly after the War. There are still some on the road. The side-valve machine lasts longest. There are 1921 long-stroke 'Beams still on our roads, and good for years. Finally, side-valves are good enough for the GPO, the AA, and the RAC, and, up north, for the police and other public bodies. Many arguments can, I feel sure, be made for and against, and I for one would like to read what others think. If we side-valve lovers do not tell the world which we believe is best, we shall not have any side-valves left. Several manufacturers do not make them—others have only one single, or, maybe, a twin, of this type in their range. What about it?

**DLD 387,** London, W1."

"MY SON TAKES the Blue 'Un, and even I, an 'old 'un' between 50 and 60, find it most interesting. Now, sir, there has been a lot about the motorised bicycle in your columns recently, and I am writing to say what a benefit they are to those like myself. I have sometimes eight or nine miles to travel, up and down four steepish hills, and by the time I rode this distance on a pedal cycle I was too puffed to enjoy my ride. So I invested in a Cyc-Auto, and I have yet to find the hill locally that it will not climb. I have been over Ashdown Forest, through Hawkhurst, Lamberhurst, Grinstead, Crawley, Limpsfield, Westerham, etc, and one day I did exactly 67 miles out and home after lunch, having tea with friends, and yet under half a gallon of petroil was used. For the man or woman like myself I say they are a godsend.

## Cyc-0-Kent, Edenbridge, Kent."

"I AM A KEEN motor cyclist and have possessed various machines, ohvs, two-strokes, etc, and since taking up motor cycling have changed my machine annually. This year I ordered a Cyc-Auto, and I am delighted with its performance. It starts immediately in very cold weather, it very rarely requires the use of the pedals, which are very handy for regaining revs when having to slow down for traffic on a hill, and is very easy to handle in city traffic.

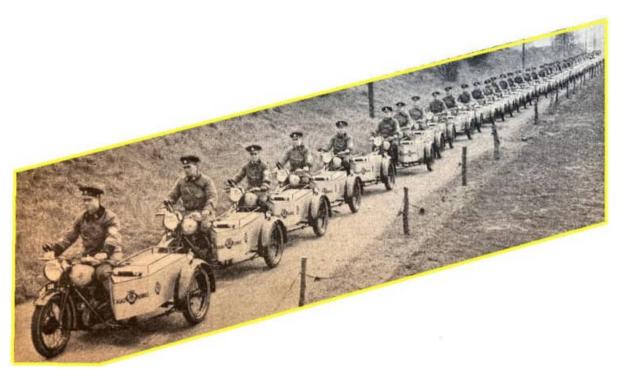
## John Duerden, Leeds, 11."

"IT WAS WITH AMAZEMENT that I read 'Nitor's' remarks anent speedway racing. Last season there was a paid attendance of over three million at speedway meetings in this county, which gives the sport an appeal second only to Association football. A large proportion of these people were either present or prospective motor cyclists, although speedway racing has little to do with pukka motor cycling. Could you please explain to me the snobbish and amusedly tolerant attitude with which the motor cycle world seems to regard the sport? I belong to three ACU-affiliated clubs, and whenever

speedways are mentioned one hears, 'Oh, that's a circus trick, any fool could ride on a speedway.' And now, in the finest motor cycling, journal which covers 'every phase of the movement'..the circus idea crops up again. I have often wondered if the people who are so ready to condemn a fine, clean and skilful sport have heard the Langton bothers. And how about Jack Parker, Colin Watson, the Parkinson brothers and Gus Kuhn, to mention but a few? If speedway racing is a circus turn, in what category does one place a modern 'super-sporting' trial? Again, speedway men are paid on the percentage of points they pick up, which to some people makes them 'dirty professionals'. Bur surely Stanley Woods doesn't ride in the TT merely because he likes the mountain air, and Bert Perrigo collects more bonus for winning a premier award than a second-class. No, 'Nitor', speedway racing may he a whole heap different from other types of motor cycling sport, but it is every inch a clean and thrilling game.

Cinder Fan, Birmingham, 6."

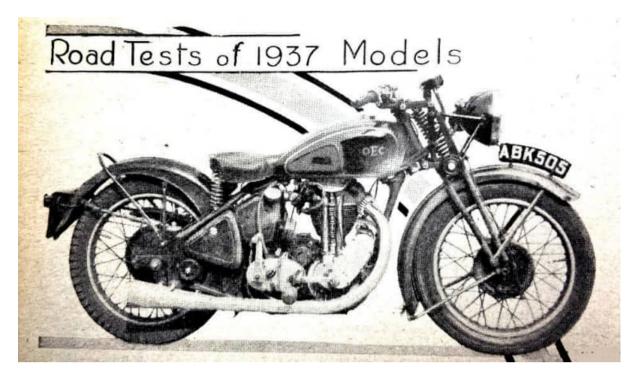
"LETTERS IN BRIEF: Thanks are extended to a Red Panther rider (DGC 413) by Mr J Gaskins (Ilford) for recent assistance. A plea for the abolition of metal studs for marking Belisha crossings is made by '500 Manxman' (London, E2). The rider of a Matchless (TO 8285) thanks the Norton rider (TF 5823) for his offer of assistance at Dunkirk (Notts). Owner of the Panther outfit, BXF 906, and his lady passenger wish to express their sincere thanks for the assistance given them on the Worthing road by the owner and passenger of the Ariel outfit, EG 339. Thanks are expressed by 'EX 3839 to Sergeant Collins and the Irish constable who assisted him in Chelmsford. The Norton rider (DPC 439) is sincerely thanked by 'CUC 416' (London SE18) for his assistance and a tow to Plumstead. A lighted cigarette end, thrown from a car window in front of a sidecar outfit, is the subject of an apology by 'Standard Nine' (Surrey)—himself a one-time motor cyclist—who explains that he did not see the machine overtaking. The incident occurred in Wellesley Road, Chiswick, late on Sunday night, January 3rd. Thanks are offered to the riders of the Royal Enfield (DPE 659) and Scott (CLH 494) by the rider and passenger they assisted on the London-Southend road on Saturday night, December 19th. A sparking plug was given to Mr F Shorter (Maidstone) by a Panther rider on Wrotham Hill on Christmas morning. The rider concerned is sincerely thanked for showing the 'true Christmas spirit."



"BSA spells AA. The AA is augmenting its road patrol organisation in preparation for a record year; here is the first batch of road service outfits to be taken over from the manufacturers."

"LAST WEEK I RODE along one of those teasy roads strung with small straggling villages. Alternately I encountered 30mph limits, street-lamp areas which were de-restricted, and street-lamp areas which were thirtied. Quite impossible to tell by the look of the area wh ether it was restricted or not. How I wish that the authorities would mark every lamp-post and telegraph pole with some symbol to indicate whether that particular bit of road is restricted or not. Two strips of white paint would show a 'de' area, and two stripes of red paint would show a 're' area. I suppose I shall be told it would cost too much. But local bigwigs have queer minds. Along one section I knew I was in a '30' area, and drove accordingly. Suddenly I saw a post, and a white disc with the familiar black diagonal line marking the end of the '30' limit. My wrist was about to twist the grip, when suddenly I spotted a gigantic 'SLOW' painted on the road two yards beyond the de-restriction post! It was a good 'slow' sign, too, for something of a sharpish S-bend followed. You don't believe me? Well, I'll take a Kodak with me next time I go that way."—Ixion

"OUR 'HISTORY' SERIES has set the grey beards wagging furiously. One grandpa tells me how he used to ride a vertical-twin Werner with separate tube ignition for each cylinder. On his first spell awheel one burner blew out. He rode merrily on, ignoring the fact that the extinguished burner was squirting petrol freely over everything. The other burner ignited the flow, and be drove into a ditch to put out the flames. The fuel consumption of this bus was 12mpg, most of which was used up by the ignition burners!"—Ixion



"IT IS VERY DIFFICULT to appraise good rear springing, for the reason that a welldesigned spring-frame smooths out road shocks so that they pass unnoticed. A good spring-frame by its very efficiency, should not obtrude itself into the rider's consciousness. Judged by this standard, the designer of the 498cc spring-frame OEC Atlanta Special has done his work well. Introduced early in the year, this new model is fitted with an interesting method of rear wheel suspension, which incorporates short radius arms with friction, dampers, and a link action. It is a big and comfortable machine with a low saddle position in contrast to the somewhat high level of the handlebars. The large saddle is mounted onto long coil springs that in the case of the model tested were act to lean slightly to one side when the rider was seated. Apart from this criticism the riding position proved excellent. The foot rests and handlebars are conveniently mounted in relation to the saddle, while the gear pedal is ideally situated under the ball of the foot. With the ignition lever fully advanced and the carburettor well flooded starting was comparatively easy, provided the throttle was only fractionally off the closed position. When cold the engine was difficult if not impossible to start with the ignition retarded, yet from the actual running of the engine it was hard to discern whether the ignition is advanced or retarded. The idling of the engine was good but not certain. At such speeds the mechanical and exhaust silence was admirable. However, according to modern standards the latter leaves a little to be desired on larger throttle openings. Throughout its range the engine was practically free from vibration, particularly at high speeds. The engine has unusual characteristics. It showed an extraordinary range of acceleration, whether low down or high up the scale. The power low down in the indirect gears was such that care has to be taken when opening up on a wet surface if a power slide is to be avoided. The acceleration in top gear at speeds

above 30mph was so good that changing down into third. gear proved unnecessary. Yet the gear box was a pleasure to use.



"A large gold-lined black petrol tank of pleasing shape is fitted to the OEC. (Right) Hairpin valve springs are distinctive features of the engine unit. The rear-wheel springing is controlled by dampers."

Selection of the gears was simple, and the clutch was delightfully positive and light in action. Completely free from drag when cold, it could seemingly stand up to any amount of abuse. When the engine was throttled down much below the minimum nonsnatch speed of 14mph in top gear it began to show signs of stalling even before snatch net in—a tendency which indicated that the ignition was slightly over-advanced. The selection of the gear ratios is excellent for fast touring. Second gear was particularly useful, having a range virtually from zero to 50mph. The mean speed of four runs in top gear in two directions was 76.6mph. The highest speed attained was 78mph, and no doubt this figure could be bettered by 3-4mph under favourable conditions. At low speeds the steering of the. OEC was a trifle on the heavy side, but while this heaviness did not decrease, as is usually the case at higher speeds, the steering was sufficiently positive to obviate the use of the steering damper. At really high cruising speeds there was just the vaguest tendency to roll, an occurrence which was possibly due to incorrect tyre pressure. Like all spring-frame machines, the OEC cornered almost of its own accord. Bumps and even deeply set manhole covers in the middle of a bend did not deviate the steering in the slightest degree. To all intents and purposes such road inequalities could be ignored. It has already been suggested that the presence of the spring-frame is difficult to detect. This does not imply that the springing mechanism hardly functions. Naturally on a smooth road this would be the case, but over rough going the movement of the springing, although small, is sufficient to prevent the machine pitching up and down and allows it to progress in a steady, horizontal plane. It was this remarkable steadiness over bumpy surfaces which made both short and long rung on the OEC the more enjoyable. The efficiency of the frame was demonstrated when the maximum speeds were attempted over a rough surface with the rider seated

on the bare mudguard; practically no physical discomfort or jars were experienced. As may be gathered, the road-holding of the OEC leaves nothing to be desired. The brakes, however, were not quite in keeping with the performance of the machine. While reasonably effective at high speeds, it took 42f. to pull up from 30mph in top gear. The machine in question was not brand new and probably the brakes required attention. The fuel consumption at a maintained 40mph amounted to 76mpg, while oil consumption was negligible. After several hundred miles the engine remained remarkably free from oil leaks, except for a slight seepage at the base of the push-rod tubes. Much of the test was carried out in wet weather and the efficiency of the front mudguard was borne out by the cleanliness of the engine. The standard equipment of the OEC includes a Lucas lighting set with voltage control and separate dynamo, which performed satisfactorily throughout the test. The dynamo is driven by a chain running inside the primary oil-bath—a refinement in keeping with the general high calibre of the OEC."



"Inter-Varsity speed trials: MN Mavrogordato, who made the best time of the day for motor cycles on his Scott. He came within 1.04sec of the new course record set up by a 1,999cc Alta car."

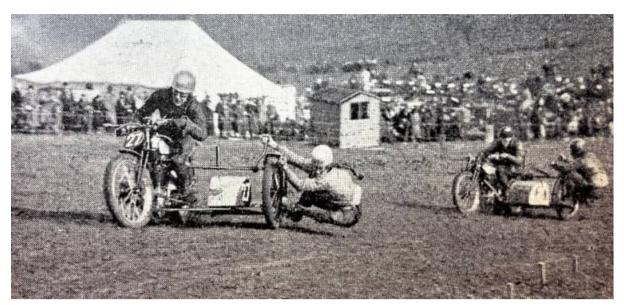
"A RECORD ENTRY of 130 gave a wonderful start to the Donington season on Easter Monday. The morning was bright and not too cold and the weather even improved a little before the first race began. Hundreds of motorcyclists thronged the roads leading into the course and it seemed that the record entry was to be supported by record attendance of spectators. Improvements have been made to the course and the newly installed roads made it possible for spectators to reach all parts without trouble."



"A thrilling glimpse of the 500cc race as seen from the grandstand. In the van is EN Peterkin, followed by W Broad, GBA Smith and CNN Thompson, all on 348cc Velocettes."

"A PROTEST AGAINST the organisation of motor cycling trials in the Fyfield district was lodged by Mr F Bretton at a meeting of the Ongar (near Brentwood, Essex) Rural District Council last Tuesday.' Tis is a word-for-word news item that arrived the very afternoon I am writing this. It follows on the statement the Minister of Transport made in reply to the Rural District Councils' Association, which made a similar protest. Let us admit that there is need for the trials world to put its house in order. But what else is there to be said on the matter? First and foremost, the roads are a national heritage. Every member of the community has the right to use them. The right is one of passage from place to place. No one can debar motor cyclists riding along the roads—whether they go on their own or one after another in an organised event. All that can be done is move on any spectators, since there is a right of passage only. But why in the name of fortune should attacks be made on one sport, and one sport only? I venture to suggest that there is no sport more valuable to the nation than motor cycling. It gives an outlet for a most important section of the community. Motor cyclists number over half a million. They are nearly all weekly wage-earners to whom health-giving recreation in the open air is essential. They are taking part in a manly sport which develops quick judgment, the skilful control of mechanism, pluck, resource, endurance, and knowledge of machinery. There is no better training for youth than motor cycling. Germany realises this, and no does Italy. Both countries do everything in their power to encourage motor cycling. Germany has even developed cross-country trials riding as a great national sport. Twenty years ago Great Britain realised the value of motor cycling. Motor cyclists were the salt of the earth. It was they who formed our star pilots; their skill and judgment

gained from motor cycling proved invaluable. It was they who comprised the Motor Machine Gun Corps, later the Tank Corps. Memories are short. At this time, more than at any period since the War, motor cycling should be encouraged. There is a call to physical fitness, Motor cycling does much more than provide fitness of body: it is educative, makes men mentally as well as physically alert, and brings in its train the very characteristics that are best in manhood and most valuable to the nation. Much of the prejudice against motor cycle sport is due to the fact that those who take part in it are young. Age was always intolerant of youth—except when there is a national crisis; then youth does the rescuing and the aged glow at the thought of what they call 'high spirits'! Do these people fail to realise that nearly all sports prove a nuisance to other members of the community? Who has not been delayed because of crowds going to or returning from a football match? Recently I was diverted a mile or more off my route by the police just because people were leaving a football match. Who has not been interfered with by the activities of a hunt, by processions, by the Boat Race, by cricket crowds, by those going to ice hockey, or practically any other sport? We all have. My personal bête noir consists of those who go riding on horseback at week-ends. These people do not keep to proper roads as motor cyclists have to do under the Road Traffic Act. They ride along footpaths and leave them in such a state that it is impossible to walk upon them. Many, too, object to 'hikers' and 'ramblers' and cyclists. 'Live and let live' should be the motto. A motor cycle trial may disturb the peace of villages or outlying houses. Why should motor cyclists not enjoy the countryside too? They need the open air much more than those whose good fortune it is to have it every day of their lives. I am not saying that motor cyclists should be intolerant of others. There is need for tolerance on all sides. There is need for thought, too. Let those who criticise trials and want them banned ponder over things quietly. Let them remember that in motor cycling they have an asset to the country: a clean sport, one that is manly, and which breeds men of observation, skill, judgment, pluck, resource, and with mechanical knowledge men of a type that has saved the country once and may have to do so again."—Nitor



"A fine action picture of the opening meeting at the Brands Hatch grass track, near Farningham, Kent. AH Horton (596cc Norton sc), the leader, won the final of the sidecar scratch race. Behind him is WJ Nethercott, also on a Norton."

"THE NUMBER OF lightweights in Berlin has increased by 14% in one year."

"OLDER TYPES of vehicles are four or five phons noisier than new ones, says the Government's Departmental Committee on Noise."

"NEW REGULATIONS in South Australia make it illegal to ride a motor cycle at over 25mph if a pillion passenger is carried."

"DURING THE RECENT Ohio floods in the United States, motor cyclists were called up by radio to assist in carrying out relief work. 'Calling all motor cyclists! All riders are requested to report immediately at the City Hall, Naval Reserve or American Red Cross Stations for duty...' was the call broadcast in West Virginia."

"REGISTRATIONS CONTINUE TO RISE. Ministry of Transport returns for the month of January show that 4,065 motor cycles, sidecar outfits and three-wheelers were registered for the first time in Great Britain. The total shows an increase of almost 10% over the total figure for the 'corresponding month' a year ago. The greatest increase was in the over-250cc class—1,951 new registrations were recorded, an increase of approximately 30% on January, 1936."

"MOTOR CYCLE EXPORTS from Great Britain during the first two months of this year show a sharp upward tendency. Motor cycles, three-wheelers and spare parts to the value of £106,647 were exported during February alone. For the first two months of this year the total value amounted to the encouraging sum of £215,822—an increase of over 36% on the figure for the corresponding period last year. During these two months the returns show that Australia was Britain's best customer; she imported machines to the value of £75,900."

"A CONTINENTAL REPORT says that there are now over 3,100,000 motor cycles in use all over the world."

"SOME 92% OF THE motor cycles in Holland are equipped for pillion riding."

"THE SUPERCHARGED BMW racing machines may not be entered for races in France because the Union Motorcycliste de France bars supercharging in its events."



"A graphic bird's eye view of the new course. Sir Malcolm Campbell designed the plan of the new track, which is thus known as the 'Campbell Circuit'. It is approximately 2¼ miles round, and it is estimated that lap speeds in the region of 90mph will be attained. As can be seen, a long stretch of the outer circuit is incorporated in the course, including a section of the fast Railway straight."



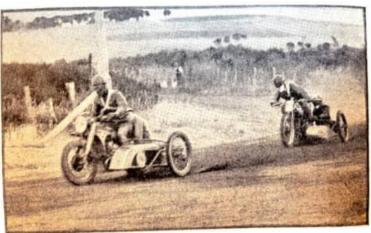
"The first motor cycle meeting over the new Crystal Palace course is to take place on Whit-Saturday. The length of the circuit is two miles (guaranteed to within three inches!) and the width of the road, 30ft."

"BECAUSE THE ORGANISERS of the European Grand Prix, to be held at Berne, Switzerland, on July 3rd and 4th, are unable to accept more than 30 entries in each race (to conform with regulations), prospective entrants are requested to send in their entries by April 25th. What are considered the best riders will be selected. Entries must be sent to W Bretscher, Chutzenstrasse, 27, Berne, Switzerland."

"J PRINGLE ADDED another Australian TT to his list of successes at the 1937 event held at Cowes, Philip Island. Riding a 490cc Norton, he led from the fourth lap and finished the 100-mile Senior Race at an average speed of 85.3mph. Close behind him thundered home G Foster (Norton), winner of the recent South Australian TT; and third was our own Stanley Woods, on a 348cc Velocette. The popular New South Wales rider, Don Bain, led in the opening stages of the race, but Foster (Norton) successfully challenged and passed him. Then on Lap 4 Pringle went into the lead, and, though harassed several times, retained it to the end. Stanley Woods seemed to find the figure 11 fascinating, for he was 11th in the race for 11 successive. laps. Then he pulled out and gradually worked himself up into third place. Stanley had an easy win in the Junior TT He was riding the Velocette again, but his winning speed was 77.7mph, that is, over 4mph slower than his speed in the Senior. Pringle (348cc Norton) was second, three-quarters of a mile behind

Woods. The Sidecar TT was the high spot of the day from the spectacular aspect. From start to finish there was a frantic duel between Bruce Rehn (596cc Norton sc) and LF Pratt (730cc BMW sc), with Rehn fractionally in the lead. Wheel to wheel they raced to the finishing line; Pratt pulled out that little extra, and won by 20 yards! G Winton (495cc AJS sc) was third. J Donovan (248cc Velocette) had an easy win in the Lightweight Race, although T Jemison led in the opening laps."

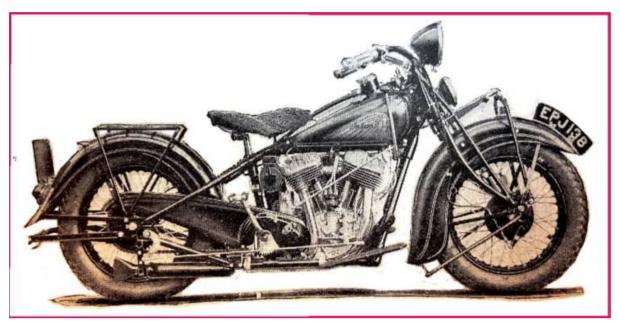




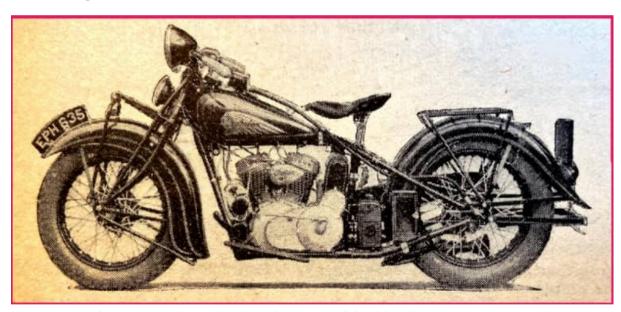
"J Pringle, winner of the Australian Senior TT on a 490cc Norton. His speed was 85.3mph." (Right) "The exciting Norton-BMW duel in the Sidecar TT. In front is LF Pratt (730cc BMW sc) opening up after a right-hand bend, while closely challenging him is Bruce Rehn (596cc Norton sc)."

"STURDY YET SIMPLE construction has for many years been the keynote of the Indian motor cycle. For the current year this well-known American company has decided to concentrate on the production of five models, ranging from the 499cc Junior Scout to the 1,265cc Indian Four. The four-cylinder model is now fitted with twin carburettors, and the ohv exhaust system introduced last year is retained. Priced at £125 in this country, the equipment includes Auto-Lite lighting, speedometer and horn. The coil ignition system can be substituted for magneto ignition at slight extra cost. In the case of the Indian Chief '74', which has a straightforward 1,206cc side-valve V-twin engine, there is little change from last year. Possibly the most noticeable alteration is the new position for the gear lever, which, instead of working direct from the gear box, is now mounted underneath the nose of the petrol tank. A new design of rear chainguard, with deeper sides; and interchangeable wheels with knock-out spindles are also new features. The price of this machine is £110 in England. The Indian Scout '45' and the 'Sports Scout'—both have 744cc side-valve V-twin engines—are very similar to the Indian Chief, except for the engine size. Both incorporate the larger machine's new features. The Sports Scout, however, has a compression-spring type of saddle in place of the seat-pillar type fitted to the foregoing models, and central-spring forks of a new type are fitted. The Scout 45 and Sports Scout cost £95 and £90 respectively. Although the smallest model in the range, the Junior Scout looks every bit as sturdy as the Chief

and Scout 45. This model has a 499cc V-twin engine of the familiar Indian design, and is equipped with coil ignition. Its lines closely follow those of the Sports Scout. The price is £75, complete with electric lighting. Indian Motorcycle Sales (Eng), 97a, Anerley Road, London, SE20, are the British agents for Indian machines."



"Interchangeable wheels are now fitted to the 1,206cc Indian Chief '74'."



"The well-built 744cc sv Scout '45', which has coil ignition."

"PERHAPS SOME INFORMATION may be of interest to you concerning the attitude of American riders towards imported machines. In many respects the better foreign makes seen to be far in advance of our models, but there are other reasons besides the unavailability of spares and replacements for our preference for our own makes. Our machines are very well suited to our desires. I realise that many foreign riders consider a 525lb bike to be a bit Brobdingnagian, and think an 80cu in motor an invention of the petrol industry. But we find that a heavy mount, on our long open roads, is much less

tiring when the mileage begins to pile up; and we do pile it up. Two hundred miles on a Sunday afternoon club-run, or even between supper and bed-time, is not at all unusual. And we insist that this be done at average speeds of 45mph, or better, with a passenger. We also rather enjoy beating cars on acceleration—but.so do you. Another aspect of our rugged side-vales mounts is that tuning and minor attention is reduced to a minimum. We customarily decoke (I hope I non using the expression correctly—we would say, 'take out the carbon') twice a year, and grind valves once; but many of us are slack in this. Our minor components are really almost completely trouble free—but are more expensive than yours. The bike I rode last year, a 1928 model, turned up well over 10,000 miles with no more attention than periodic greasing, chain adjustment, and topping up, with a de-coking job in September necessitated only by the fact that the motor had been 'hotted up' considerably. We think 20,000 miles a, reasonable interval between valve grindings. Of course, we pay for carrying all this weight. Our tyre mileage is about 6,000 to 8,000 on the rear wheel, and perhaps 15,000 on the front. Gas mileage, at reasonable speeds, ranges from 30mpg or less with 80 cu in sidecar outfit to 60mpg with a 74 cu in. solo mount, the variation depend-ing largely on the driver. Safety-bars, usually referred to as 'spill-bars' or 'flop guards', are a real necessity with our heavy machines, as with-out them it is not impossible to be pinned to earth by a hot exhaust pipe or cylinder—not to mention the saving in clothing and skin in the course of a slide down an abrasive-surfaced road. They also afford leg-protection in the event of being struck from the side by the bumper of a car.

## FA Morrisey, Massachusetts, USA."

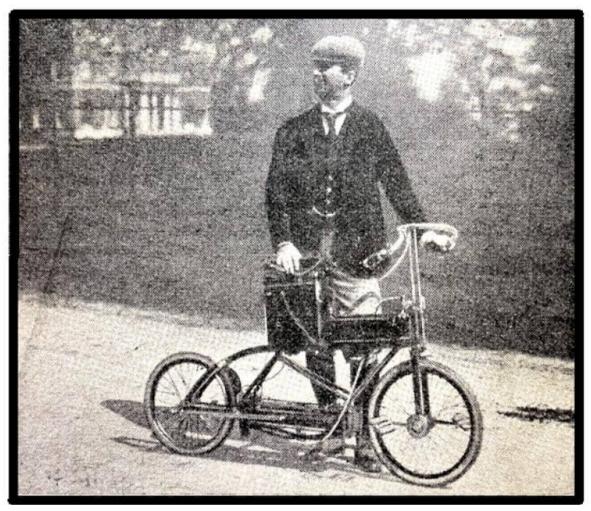
"WHICH IS THE FINEST piece of prose about motor cycling? I think this extract from a letter by the late Lawrence of Arabia to a friend takes some beating: 'It's usually my satisfaction to purr along gently about 60mph, drinking in the air and the general view. I lose details even at such moderate speeds, but gain comprehension. When I open out s little more as, for instance, across Salisbury Plain, at 80 or so I feel the earth moulding herself under me. It is me piling up this hill, following this valley, stretching out this level place. Almost the earth comes alive, heaving and tossing on each side like a sea. That's a thing the slow-coach will never feel. It is the reward of speed. I could write you pages on the lustfulness of moving swiftly.' What do other readers think?

## George Barclay, Belfast."

"UNQUESTIONABLY OPEN TRIALS by being held one after another lose much of their interest and consequent importance. Presumably the three reasons why they are not spread throughout the year are: (1) that mud is often absent during the summer months; (a) manufacturers in many cases are busy on their racing programmes and (3) the summer is the period of holidays. Our feeling is that at present there are too many open trials. But our chief criticism of the events is that they are of little tangible value. They prove whether machine A is better than machine B for riding through freakish sections—in other words, for trials work—but give no clue at all to which motor cycle is preferable

for ordinary touring use. We may see a change in this connection, for later in the year there is to be a big open trial designed to test machines and act, in part at all events, as a buyers' guide. Our hope is that this will set a new fashion in useful trials."

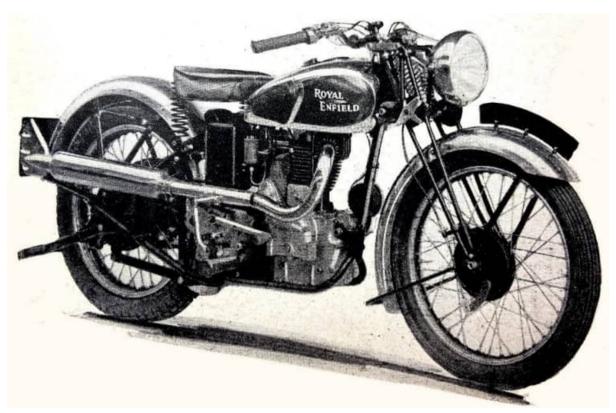
AMONG THE HISTORICAL EXHIBITS to be found at the Science Museum at Kensington, London, is an ancient motor cycle known as the Holden. Many motor cyclists must have examined this strange-looking machine, and probably either laughed at its crudity or marvelled at its beautiful construction. Very few can have given a thought to the man who, in those pioneering days of the '90s, conceived a type of engine that was to survive a period of intensive development of singles and twins and attain considerable popularity over 30 years later. The designer of the first four-cylinder motor cycle was Bri.-Gen. Sir Henry Capel Lofft Holden, and his death recently at the age of 81 has still further reduced the number of great motor cycling pioneers. Sir Henry (or Colonel Holden as he was then) introduced his sensational motor cycle in 1895. It had a 3hp water-cooled flat-four engine with hollow-cranked connecting rods, mounted on a cross-head and driving a small rear wheel direct. It was fairly fast, but not very reliable. All the same, it sold well up to about 1902. It is not, however, only as a designer of engines that Sir Henry earned his fame, for he was also responsible for the design of Brooklands Track. In an interview with The Autocar immediately before the track was opened, Sir Henry claimed that speeds of 120mph would be quite safe, and higher speeds 'reasonably safe'. He also said that cars should not require steering round the bends. This in 1907, when a lap record of 143.44mph (the present figure) must have seemed fantastic! Outside the motoring world Sir Henry was renowned for his inventions in the field of electrical science and gunnery. Brilliant as he was in these directions, it was to motoring that he turned for his recreation, and his intense love of the game remained with him to the end. From 1904-1905 Sir Henry was chairman of the RAC, and during the war he was War Office Director of Mechanical Transport."— Centaur.



"The late Brig-Gen Sir Henry Capel Lofft Holden, designer of Brooklands. He is seen here with the Holden motor cycle, the first four-cylinder machine ever built."

"THE MAKERS OF ROYAL ENFIELD machines have gone to much trouble to produce outstanding models of the sporting type. Two editions of this class of machine which are now in production are the 248cc and 346cc ohv Bullets, both designed to meet the demands of the most fastidious rider. By varying the specification these machines are suitable as fast road mounts or for use in trials, scrambles, grass-track events, and so on. Both models follow the same lines and, from the point, of view of design, are identical. The engines have bores and strokes of 64x77mm (248cc) and 70x90mm (346cc), and are mounted upright in the frames. They are specially tuned and have respective compression ratios of 6.75 to 1 and 6.5 to 1. The ohy rocker gear is enclosed, but not the valve stems and springs. A channel formed in the cylinder casting houses the push-rods; the adjustment is at the base of the cylinder—access is gained by removing a cover held in place by a single finger-nut. Five studs are used for holding down the cylinder instead of the usual four-stud arrangement. Oil is contained in the sump, and circulation is by twin pumps. There is a lead to the rocker gear, but only a small quantity of oil is by-passed to this point, in order to obviate flooding. Greasers are fitted on the ends of the rocker shafts. Excess oil drains to the base of the push-rod

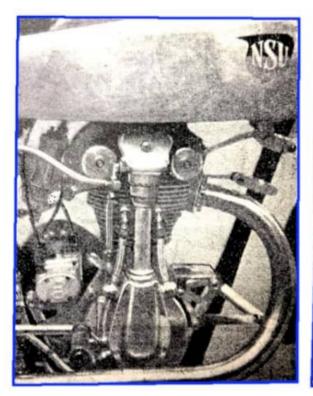
channel, so lubricating the tappets, and there is a bypass direct to the timing gear, to which oil is positively fed. Behind the engine is a heavyweight four-speed gear box built on really substantial lines to withstand hard usage. The kick-starter has a folding pedal, and the positive-stop foot control for the gear is incorporated in the box; the pedal has an unusually short travel...The primary chain runs in an oil-bath case. The frame is a sturdy piece of work; a cradle is formed by duplex tubes leading from the front engine lug on the down tube to a point beneath the gear box, where the tubes join up with the chain stays. A Terry saddle is fitted. The 2%-gallon petrol tank has knee-grips and a panel containing the lighting switch and ammeter. A steering damper is fitted, and the tubular front forks have hand-adjustable shock absorbers. The handlebars are rubbermounted, and are equipped with long clutch and brake levers. Each machine has a 6½in. front brake and an 8in rear brake—the latter is operated by a pedal on the left aide. Lighting equipment includes a Lucas racing Magdyno set with automatic voltagecontrol. The head lamp wiring is carried to a four-pin plug mounted on the forks, and from this a short length of harnessed wires runs to the head lamp itself. By pulling out the plug from its socket the lamp may thus be removed easily and quickly, and there are no dangling cables to deal with. An electric horn is mounted at the base of the front down tube...The finish is smart—the chromium-plated tank has a red panel, the head lamp, exhaust pipes and mudguards are chromium-plated, and the crankcase is polished. Upswept or downswept pipes with sports silencers are optional, and there is a choice of narrow or wide mudguards... A vertical bar is fitted on each side of the chain and seat stays, and these form an alternative anchorage for the footrests, or two pairs of footrests may be used if desired...each of these machines is available with an aluminium-bronze cylinder head, megaphone exhaust system, a special racing gear box with heel-and-toe control and no kick-starter, footrests in racing position and a rear mudguard pad. Various gear ratios are available."

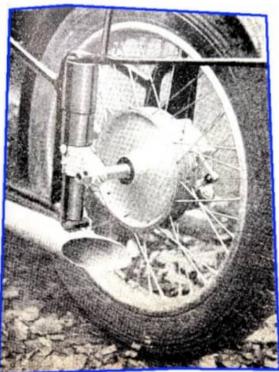


Sporting models built for the job, sums up the competition Royal Enfield Bullet models. This is the 346cc model equipped with wide mudguards."

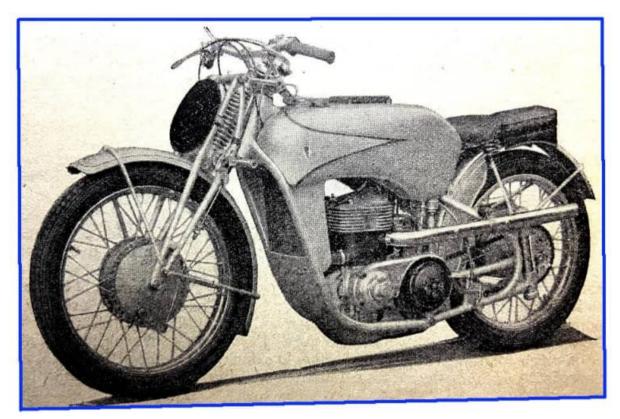
"THE TT NEWS IS EXCITING. Not only is there a new Velocette engine, but from Germany comes the statement that BMWs will be competing—either a singleton in the hands of JM West or a complete team. All three German racing marques have undergone changes. Rear-wheel springing is, of course, to the fore. BMWs appeared with a spring frame in the last International Six Days Trial. Those in the know, said that something similar in the way of springing would be adopted for road racing. The design for road racing is very much after the style of that employed by the German Trophy team last year, and this, as may be recalled, bears a close resemblance to the Norton spring frame. Like BMWs, the makers of the DKW gave their rear-wheel springing a preliminary try-out in the German winter trials. Again the piston or plunger system has been adopted, but in this case there is a pair of chain stays which are pivoted just behind the gear box and are coupled to the spring plungers at a point some three inches in front of the rear spindle. The plunger works in oil, but no form of damping is employed. An important change is the new DKW engine position. In both the 250 and 500cc models the cylinders are now mounted vertically instead of being inclined forward. According to reports from Germany, the weight distribution has been considerably improved, with consequent advantages in cornering and roadholding. At the same time the radiators have been set vertically—which presumably improves the air flow and, therefore, the cooling. Separate engines and gear boxes are now employed on both the 250 and 500cc DKWs. In each case a four-speed box is, of course, employed. The brakes are operated by Bowden cables, and the front brake drums as last year comprise the hub shells.

BMWs are using a similar arrangement, and are also employing cable operation. Incidentally, the weight of both makes, it is said, has increased by just over twenty pounds as a result of the rear-wheel springing. While these two famous German machines have gone up in weight, the NSU Company has been busy saving pounds—to be Continental, kilogrammes. A number of parts on the latest racing models are constructed in light alloy. The engine now looks huge, for the whole valve gear, including the hairpin valve springs, is enclosed in the light alloy cylinder head. The method of cooling employed for the valve gear is to flood the parts with oil. For this purpose there are three large-diameter flexible pipes running roughly parallel to the shaft that drives the overhead camshaft and arranged to pass gallons of oil an hour."





"Although hairpin valve springs are employed, the entire valve gear of the new 500cc NSU is enclosed. Note the oil leads employed for flooding the valve gear with oil—as a coolant. The cylinder head of this ohc engine is of light alloy." (Right) "A close-up of the new BMW rear-wheel assembly. The springing is of the spring-loaded plunger type and is damped hydraulically. The way the hub shell acts as the brake drum is interesting."

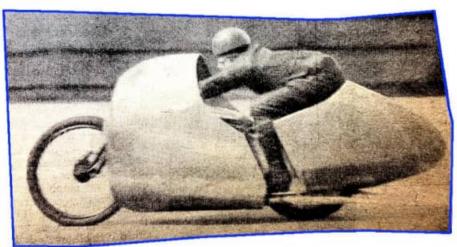


"Many alterations have been carried out on the DKWs. The engines and gear boxes are separate in all cases, and rear-wheel springing is employed. While plunger-type springing is used, in this case there is a pair of chain stays pivoted immediately behind the gear box. Note how the cylinder block of the supercharged, water-cooled two-stroke Is now set vertically. This is standard on the 250cc model as well as the 500cc, which is the machine illustrated above."

"FERNIHOUGH HAS BROKEN the world's maximum speed record. As we go to press, a cable has arrived. It records briefly that EC Fernihough has raised the record for the flying kilometre to 169.8mph [and the flying mile to 168.5mph]. Thus Britain once again holds the coveted record for the maximum speed achieved by a motor cycle. A little over a fortnight ago Fernihough slipped quietly across to the Continent. Throughout the winter he had been working on his Brough Superior-JAP, designing, making and fitting a special form of streamlining. On Wednesday of last week he made his first attempt. His machine hurtled down the course at a speed of 175mph, the highest ever officially recorded. He turned round to cover the course in the reverse direction, for the rules demand that the mean of two runs, one in each direction, be taken. With only half a mile to go, and his 1,000cc supercharged JAP engine developing full power, the engine sprocket fixing gave way under the load. He had failed, but it was a glorious failure. Earlier this week he made a further attempt. His speed was lower, but it was sufficient. By a narrow margin he wrested the record from the famous German rider, Ernst Henne (BMW) and at the same time regained the one-mile record and the flying-kilometre and flying-mile sidecar records. We offer our heartiest congratulations to Fernihough, to the

manufacturers of his machine and engine—to the whole team behind this magnificent effort...In a single day he has broken four world's records. With a sidecar he has covered the flying kilometre at 137mph and the flying mile at 135mph. No sooner had he returned [from his previous attempt] than he set about making his Brough Superior faster still. He set about streamlining it. For his records last year he had merely used a cowl over the steeling head and a disc rear wheel. He could have enclosed the whole machine, but he decided to make the Brough Superior a streamlined motor cycle rather than a car on two wheels. He therefore designed the shields so that while he himself would be tucked inside the fairing, he still retained his normal riding position and also had his feet free for starting and stopping...The window in the rounded nose is made of Perspex, such as is used for aeroplanes. The nose does little more than clear the front tyre in a lateral direction. Of steering lock there is next to none, and in order to turn the machine round ready for tackling the kilometre in the reverse direction it is necessary to heave it round or go a little at a time, using the few degrees of lock, first in one direction and then in the other. Having made the streamlining, he found on reaching Gyon, that it was not necessary—the machine was fast enough without, and he did the 175mph without it."

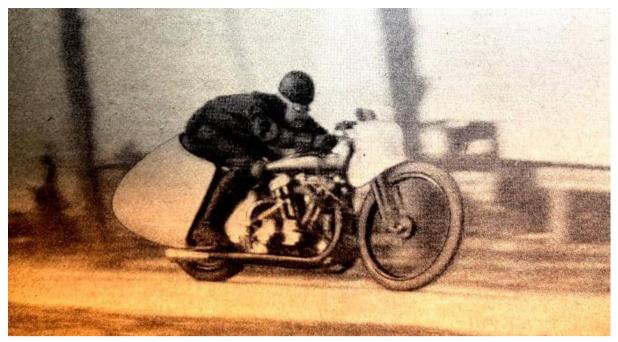




"Streamlining! A head-on view which shows how beautifully the Brough Superior has been enclosed." Fernihough couldn't afford to have the streamlining made professionally—he taught himself panel beating and aluminium welding and made the whole thing himself. (Right) "In action: Fernihough taking the Brough on a test run. The streamlining was not in position when he broke the records; he found the machine fast enough without it."

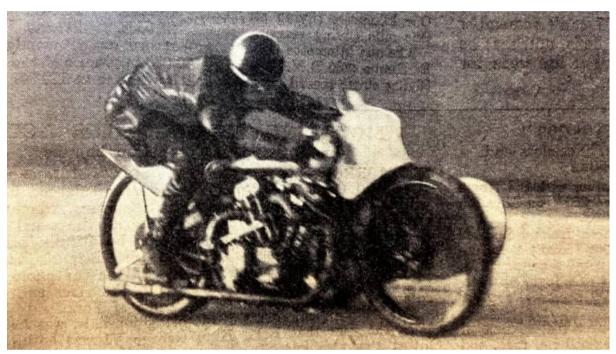
"HAND-SHAKES AND CONGRATULATIONS over, I asked Fernihough whether he realised that he had just, and only just, beaten Henne's record by the requisite 5/100ths of a second. '0-o-o-h!' came the reply, 'so that's what all the bother was about.' He had never heard that there was any special margin by which a previous short-distance record had to be broken, nor apparently did they know anything of the sort in Hungary. Had he known he would not have gone straight out for the sidecar records after his

attempt on the world's maximum speed record, but would have seen whether he could not put it still higher. What a bitter pill it would have been if he had re-turned to find that the record of records was not broken after all. He had a copy of the ACU rules with him, but not a copy of those issued by the FICM. However, all's well that ends well—the margin was enough. Before getting down to business—that is, finding out more of the inner history of his great achievement—I said, 'How do you pronounce Fernihough?' The answer is that the latter half does not rhyme with 'cough' or 'how', but 'ho!' His name is 'Ferni-ho'! Last week we related how, when making his first attempt, he did 175mph one way, and when he was going like smoke in the opposite direction his engine sprocket key sheared. This occurred when he was right up to his maximum and the record seemed almost in his pocket—in fact, just a case of going out to Gyon, in Hungary, zipping-one way, zipping the other, and returning the world's fastest motorcyclist! The interesting point is not that the key sheared, but that this occurred when he was up to his maximum; in other words, it was not acceleration that caused the trouble, but the pulling power of the mighty supercharged JAP engine. In order to get to Hungary in time for making an attempt on Monday, the 12th, Fernihough drove his van 695 miles in 36 hours with only stops for meals. He arrived, however, to find that the road could not be made available for the Monday. He could use it the following day if he liked. Fernihough did not like—it was the 13th of the month and he is superstitious; he came off at over 100mph on the 13th when competing in the 1934 Calais Grand Prix. No, he would not have the road on the 13th at any price, and, as of course would happen, the conditions that day were just about ideal for record attempts, much better than on any of the other days he was there. The Hungarian Club, ever helpful, said that, while he could not use the Gyon road on the Monday, they would get hold of another piece of road so that he could practise. They were as good as their word, but, unfortunately, it rained, so Fernihough did merely a burst of speed up to about 150mph. On the Wednesday he achieved his 175 mph, but as this was only in one direction—his sprocket key shearing when tackling the other—the run counted for nothing. His bad luck was not quite over for that day, although he managed to beat his own standing-mile record, using his spare machine. On this, no sooner had he changed into second gear than all the teeth on the second-gear pinion sheared off.



"A remarkable, exclusive photograph of EC Fernihough and his Brough-Superior-JAP hurtling down the Guyon Roafd on his successful attempt upon the world's maximum speed record. This picture was taken within the measured kilometre with Fernihough at approximately 175mph."

However, his ten-year-old box still had third and top in addition to bottom, and with only three out of the four gears in operation he got the record. The Friday came. There was wind—far too much for record attempts. The long day through, Fernihough waited. Just at sunset he had a run. According to eye-witnesses the sight was one never to be forgotten. As the spectators watched, the projectile that was Ferni and the Brough hove into sight, grew to life-size in what seemed a fraction of a second and was past almost too quickly for one to turn one's head. He was travelling, westward—straight towards the setting sun. The machine and he were a black atom, growing ever smaller as seemingly they dived into the inferno of the setting sun. All this to the tune of the raucous war-cry of the big supercharged JAP engine on full throttle. Can it be wondered that the little crowd of spectators was thrilled? The engine, however, was misfiring. Fernihough missed the record by about a tenth of a second. The Bosch Company, with true sportsmanship, once again came to Ferni's aid. They tested the magnetos, but found nothing wrong. Fernihough, however, decided to put on the spare magnetos off his other machine. Hey presto! the misfiring disappeared. April 19th came, and again he had to wait all day. The wind made it next to impossible to attempt the record, but Femihough is superstitious, as I have mentioned before. He was certain that he would get the record, for he found a horse-shoe in the road! The wind was bad. It was blowing across the Gyon road. He had a practice run in the morning. His goggles squashed against his eyeballs even as they did last year. He slowed down; all he could see was a blurred white and green—the white of the road and the green of the roadside—nothing was clear. Fifty yards of white and green was about the sum total. He stopped safely, but it was one of the worst experiences he has ever had. The wind pressure had been colossal; there was a 35kph wind, and he was doing 175mph. He was getting the wind pressure of some 200mph. The question was how to deflect the blast of air that was causing the trouble. In his van he found an old competition number—it did the trick! Although he was not employing the full streamlining he was using the tail, as you will see from the photograph. The gusty side wind was catching the tail, blowing it sideways. The Brough Superior held its steering perfectly, but the sight was such that he was begged not to make his attempt. The wind continued gusty, but, as all know, he achieved his ambition of regaining the world's maximum speed record. His two runs over, the little party set about fitting the Noxal sidecar. In roughly an hour everything was done—gear ratio changed, sidecar fitted, tail removed, and the rest of it. Two men formed the 'little party'. One was RC Rowland, who in



"Fernihough at speed with his Brough-Superior in sideor form. Again he broke records. In one direction he averaged 143½mph—with a sideoar! This picture, too, was taken inside the measured kilometre."

normal life is Fernihough's rival, for he keeps a garage at Byfleet, a mile.away from Fernihough. On this record-breaking trip, however, he has been Ferni's aide de camp and invaluable friend. The other member was Coleby. 'Is his Christian name Peter?' I asked. 'Why?' came the reply. 'Only that the name Peter Coleby is familiar' I answered. 'I can't remember why, but you say what an enthusiast he is, and that he is only 19. I rather think it is he that has been for many years a persistent correspondent.' Whatever it is that brings Coleby's name to mind he is a wonderful enthusiast. Night and day he laboured as Fernihough's mechanic on the preparation of the machine. He helped to make the streamlining and he went out to Hungary as Ferni's mechanic—his first trip abroad, incidentally. For three years he tried to get Ferni to take him on, applying at least

twice a year. Now he has achieved his ambition, and, what is more, he has been on the trip on which Ferni has broken the world's maximum speed record. It was the sidecar record, however, that provided the most excitement. Fernihough had not driven a sidecar since the Brighton Speed Trials last year. He set forth—ballast in the sidecar! The wind caught the sidecar. The outfit went sideways, straightened, went sideways again...Hectic was the word. The rev counter was showing the equivalent of 147mph. At the far end the sidecar wheel nearly collected the stake of the timing apparatus. Ferni thought it had, and wondered whether it was any good making the return run. The stake was still there, and he had achieved the colossal sidecar speed of 143½mph. He was slower in the opposite direction, but hardly less hectic. And Ferni says, 'It was real good fun—leaping, but there was the third wheel. There's nothing quite like a fast sidecar.' Thus the story would seem to end, but not quite. Among the most treasured souvenirs which Ferni has returned with is a telegram of congratulations. It is from Ernst Henne, the man whom he was out to beat, and must have been sent the very instant that Henne heard the news. Finally, there was the wonderful reception Fernihough had on his way through Germany back to England—sportsmen all. Solo maximum speed records: 1km (flying start), 13.17sec/169.786mph; one mile (flying start), 21.38 sec/168.381mph; one mile (standing start), 32.87sec, 109.522mph. The 1km (flying start) record was previously held by E Henne (supercharged 495cc BMW) at 169.016mph. Fernihough (Brough Superior-JAP) himself held the mile, flying and standing starts, at 163.822mph and 109.254mph respectively. Sidecar maximum speed records: 1km (flying start), 16.315sec, 137.109mph; one mile (flying start), 26.635sec, 135.160mph. The 1km (flying start) record was previously E. Henne (736cc BMW sc) at 129.079mph; and the one mile (flying start) record was also held by Henne at 128.847mph."—Torrens

ERNST HENNE MIGHT WELL have been a real sportsman, but he wasn't going to leave the record in British hands if he could help it. Piero Taruffi had done 170.37mph on the streamlined blown dohc Rondine/Gilera but the FICM rules demanded an improvement of at least 0.5mph to set a new record. Henne settled the resulting row by setting a new kilometre record of 173.67mph on the blown 500 BMW—for good measure he also set new 500, 750 and 1,000cc flying-start records at one mile, five miles and 5km. At which point Herr Henne retired with 76 land speed world records under his belt (ok, more accurately, shaft); having increased his speed annually from 1929 to 1937. His record would stand for 14 years. "Running at top speed,' Henne remarked, 'the road feels as narrow as a board. The trees on the sides of the road give the impression of 'closing in' on me, as if I were projected into a tunnel."





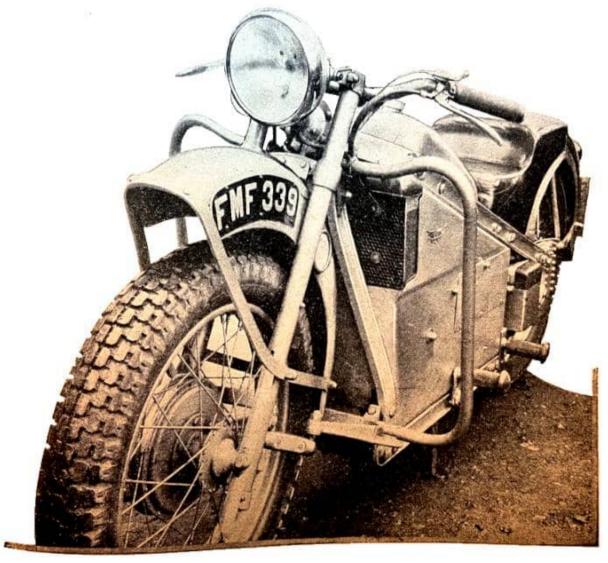
Henne's record would stand until 1951—but that's for another year.

"THE FOLLOWING IS A LETTER that the Editor has received from the Bayerische Moteren Werke (BMW) of Munich, the famous German motor cycle manufacturers: 'In the last issue of your paper, The Motor Cycle, always so full of interest, we were very pleased to find a report on the latest world's record attempts of Ernst Henne, near Frankfort o/M, conveying also congratulations to Mr Henne and to our company as manufacturers of the record machine. We sincerely thank you for your good wishes, and do so also on behalf of Mr Henne. In view of the fact that the world's maximum speed record was last held by a British rider, we have been particularly gratified at receiving congratulations from that side, all the more as both our countries are closely united by a spirit of real sportsmanship.'"

WHILE THE WORLD'S FASTEST record has recently been beaten by Henne, the Brough, as it happens, has still attained the highest one-way speed—with a time of 12.80sec. This is without full streamlining. The natural question is: 'What is going to happen next?' The answer is that Fernihough is determined to regain the record—provided that (to use his own words) it is possible for an ordinary bicycle to get it. If it is a question of aerodynamics on two wheels it is, he says, beyond his resources, and he considers that development on these lines will do nothing to help motor cycle design. He adds that he will not use the semi-body he made last winter; his machine will be a practical motor cycle, one capable of lapping that twisty circuit, the Crystal Palace road course, even as the Brough did earlier this year."

"A 'DREAM' MACHINE? Yes, you are right, but it is a dream which a little band of enthusiasts has made come true. This motor cycle has been designed by an amateur and built by amateurs, and the facilities available are no greater than many other enthusiasts could muster if they, too, clubbed together. There is a history to the 'Mercury' even as there may well be a future. The motor cycle illustrated is the first of five which are at present under construction. It has now completed about 1,000 miles. The germ of the idea came from a tour of Scotland some six or seven years ago. Those were days when the roads in the Highlands were often no more than vile pot-holed tracks littered with loose stone. The yearning was for motor cycles providing greater comfort and easier control, but without any sacrifice in speed and performance. The one responsible for the design was Mr L Jenks. By sticking at it the little band of enthusiasts both a machine with a tubular frame in approximately 12 months. It has now been on the go for four years and with the fruits of this knowledge the remarkable

machine shown in the photographs has been evolved. Four have been mainly concerned in its manufacture. Working in their spare time they have in 18 months from the date when the castings were ordered made one machine and built the frames for the four others—this in a normal-sized garage with as their equipment a 3in. Tyzack lathe, a pillar drill, a power grinder and welding equipment. Now look at the machine that has resulted. It is a masterpiece—there is no other word for it, and much of the design is ingenuity itself. Comfort and controllability comprise the main aim. Hence special pains have been taken to keep the unsprung weight of both the front and rear wheels to a minimum. In the case of the rear-wheels springing little more than the wheel assembly itself is unsprung, while at the front a development of the OEC duplex steering is employed.



"That the machine is striking in appearance can be gathered from this picture, which shows, among other things. the duplex steering, the safety bars and the neat way the radiator has been built-in."

The first thing that strikes the eye, however, is the clever duplex frame. The members are of a special I-section Duralumin made by Vickers. The flanges of the I-section are  $\frac{5}{16}$  in thick, the web, ¼in., and the overall dimensions, 1%x%in. These members were heated and bent to the required shape and then bolted tongue-and-groove system to the special Y-alloy lugs. The head lug is of box section and incorporates at the front end a socket for the 2in diameter ball that is attached to the top of the front fork members and carries all the weight. The ball-and-socket joint—or, steering head, as it really is—is lined with white metal and designed so that it can be easily adjusted should any wear occur. The actual fork members are of steel tubing and the spring plungers to which the front wheel spindle is attached slide in white-metal-lined guides. At the rear of the forks and attached to the front of the frame is the U-shaped member which with the short links complete the duplex steering. Bronze has been employed for the lug anchoring the lower end of the front forks and also for the sprung members that act as the mounting for the rear wheel. In this latter case the spring boxes are carried parallel to the upper frame members and the movement of the wheel is controlled by slots at the rear end of the frame. The slots are designed so that for all practical purposes the rear-wheel spindle is at a constant radius relative to the gear box. Roller bearings are provided as intermediaries between the slots and the pivot members that carry the rear spindle, and in order to ensure lateral rigidity the latter is 1½ in in diameter and keyed to the fork ends. Both the front and rear springing have a total movement of five inches. No special damping devices are employed, since in practice none has been found necessary. That the machine should be comfortable with such a large range of movement per wheel goes without saying. The designer; however, has also gone in for large tyres—4in section John Bull 'Deep Grip' front and rear—and a combined saddle and pillion seat that ensures that both rider and passenger revel in the lap of luxury. The seat is formed in 'Dunlopillo', mounted on a light framework and covered in leather cloth. Separate footrests are provided far both rider and passenger. The wheels are special, too. They have aluminium bronze hub shells—to which are bolted 8in diameter brake drums—journal ball races and massive-looking spokes. Welded steel is employed for the tank. This has a capacity of just under five gallons (long-distance, high-speed touring is the idea); it incorporates a tool box and a special oil compartment for lubricating the chains. The tank is rubber-mounted and fitted with a special 'snap' filler cap. Indeed there are few things on the machine which aren't special! While the frames are able to accommodate almost any type of engine, up to the present Scotts have been employed. These in the 596cc size, slightly tuned and fitted with a modified lubrication system using petroil as the medium, are stated to provide over 90mph. Actually the line of action has been to buy Scott machines second-hand and recondition and tune the engines. The result is that the present models are coming out at about £100 complete, including charging up the time involved.



L-R: "I-section Duralumin is employed for the frame in conjunction with Y-alloy lugs. The cylinders mounted parallel to the upper frame members are the spring boxes for the rear-wheel springing. The pipes on the off-side of the engine are part of the special silencing system." "This view shows clearly the construction of the duplex steering and the general design of the light-alloy frame." "A tank-top tool box is provided, also a cubby hole for waders and personal oddments. Note, too, the shape of the seat, the quick-action filler cap and the battery mounting."

Even in the engine and gear box mounting there is considerable ingenuity. Everything is accessible and the Magdyno and gear box are on a platform with the former gear-driven from a pinion encircling the clutch housing. This driving pinion instead of being cut from the solid is made of steel strip! For the sideshields Duralumin sheet is employed. Stiffness is provided by setting up the edges at right angles. Each shield is held in place by two wing nuts arranged to 'click' every half turn and thus be prevented from working loose. There is a special 'wing nut' which turns on the petrol tap and alongside it, a little projection for flooding the carburettor. On the near side, as will be seen, a compartment is provided to act as a locker for a pair of waders or personal oddments. There are also such things as an exhaust system that has no baffles yet secures a high degree of silence, a low-lift stand, an accessible yet neat battery carrier, a detachable rear mudguard and safety bars designed to save machine and rider in the event of a spill and to buckle before they could conceivably bend the frame. No, the machines are not yet on the market, but they may be built to order in the near future. Whatever the future may hold I give the little band of enthusiasts absolutely full marks, and so will everyone else who sees inside their little workshop and/or examines their production."—Torrens



"The engine gear-box unit of the 490cc DKW is mounted in a sturdy duplex pressed-steel frame. The flywheel casing houses the dynamotor."

"OVER A PERIOD of years the Auto-Union factory in Germany has built up an enviable reputation with its diminutive DKW two-stroke motor cycles. Although the name DKW is an abbreviation of Das Kleine Wunder (The Little Marvel), it is still applied to the larger machines which in more recent times have become famous m motor cycle sport. At first glance the latest 490cc DKW is similar in design to accepted modern British practice, but there are many interesting and novel features which are only to be found on close inspection. It has a side-by-side twin cylinder two-stroke engine, inclined slightly forward in a sturdy duplex cradle frame that appears to be tubular, but is in actual fact of bolted, pressed-steel-construction. The engine has flat-topped pistons and is built in unit with a three-speed gear box, the primary drive being by gears. An interesting and unusual feature is the fitting of an electrical self-starter. The riding position is very comfortable. A luxurious saddle with a wide range of movement is fitted, and this has a butterfly nut whereby the saddle can be adjusted to .suit riders of widely differing weight. The correlation of the handlebars and the footrests is excellent, but the range of movement of the latter is rather dependent on the position of the heel rear brake, which is not adjustable. When the machine was taken over for testing the battery was so run down that leads from another battery were necessary before the engine could be started by the kick-starter. After a journey of only 80 miles the self-starter was capable of starting the engine from cold. The battery was then properly recharged, and from then onwards the kick-starter was ignored. The self-starter is actually a flywheel dynamotor, and when the. starter button is pressed the engine immediately begins to turn over as if by magic, and invariably fires after two or three revolutions. A separate switchbox is mounted on the off-side of the battery. The switch key has five positions controlling the lights and ignition. In one position the parking lights may be left on, but without the ignition or horn. The engine would settle down to a surprisingly good tickover. The clutch was a trifle heavy, although very smooth, in operation. The handlebar lever is coupled with a pedal which, after very little practice, can be used with every confidence. Silent gear changes could be made provided the necessary care was taken.

The choice of the gear ratios left nothing to be desired. A wide range of speed was obtainable in both the indirect ratios, and the acceleration was outstanding. The engine possesses the most extraordinary flexibility which, combined with its silence and lack of vibration, made riding in traffic a pleasure. In top gear it could be throttled down and made to pull evenly and smoothly at 8mph, and its acceleration from this slow speed was surprisingly good. Second-gear starts could be made with the greatest of ease, and in this ratio the machine would accelerate straight away to over 60mph. The liveliness and flexibility of the engine are all the more creditable when it is borne in mind that the ignition setting is fixed. On light throttle at 30mph the engine would two-stroke perfectly, but at slower speeds on light throttle it showed a tendency to four-stroke on one cylinder. At low speeds a slight whine could be heard from the geared primary drive, but at over 40mph the noise disappeared. For a two-stroke engine the exhaust was outstandingly quiet. There was less noise than is the case with most



"Great attention has been paid to details on the DKW. Note the moulded speedometer mounting and steering head. The front forks are of D-section pressed-steel." (Right) "An auxiliary pedal is incorporated in the clutch operating mechanism. The self-starter button is mounted in front or the battery."

cars. The twin exhaust pipes are linked by a connecting pipe just in front of the rear wheel. Although the engine was extremely docile, it had many sporting characteristics. Mile after mile could be covered at speeds of 60-65mph without any trace of overheating. The mean speed of four timed runs in both directions over a quarter-mile was 70.2mph in top gear. The best timed speed obtained in one direction was close on 74mph. Incidentally, at these speeds the speedometer was a trifle optimistic. While the DKW makes no pretence to be a sports model, its acceleration brings it into line with the best. In spite of its weight—428lb in full touring trim—the handling of the DKW at all speeds was beyond reproach. At low speeds the steering was light and positive, and at high speeds it gave an impression of being damped to just the right extent. Cornering was all that it should be—in fact, it was somewhat of a revelation that such a heavy machine could be swung round bends in the manner of a light racing 500. The roadholding was excellent, and this, coupled with the large movement of the saddle springs,

made it difficult for the rider to realise that the rear wheel was not sprung. Over mud and grease with standard road-treaded tyres the steering was surprisingly good. At a maintained 40mph the petrol consumption amounted to 80.75mpg. The oil was mixed in the ratio of 16 to 1 with a No 1 fuel. On this mixture it was almost impossible to make the engine pink, even up a steep hill on a wide throttle opening in top gear. The detail work of the DKW has obviously received the closest attention. The mudguarding is such that after many miles in rain and over mud practically the whole engine unit and most of the machine were free from dirt. Throughout the test the engine remained perfectly oiltight."

"THE MOTOR CYCLE, regrets to record the death of Mr William Douglas, the founder of the famous motor cycle firm that bore his name. Mr Douglas, who had been in poor health for some years, died at his home in Bristol last Thursday at the age of 77. The career of the 'Old Man', as he was affectionately known to many, was almost romantic. With hardly any capital—said to be £10 which he borrowed—he started a small engineering workshop and specialised in bootmaking machinery. His métier, however, proved to be the manufacture of motor cycles. A little over 30 years ago he became interested in the Fee (later known as the Fairy) lightweight motor cycle designed by Mr J Barter. This was a horizontally-opposed twin the drive of which was by means of a round, twisted belt. The engine was in line with the frame just as is the case with the Douglas of to-day. Mr Douglas persevered with the design and in 1907 produced an improved edition called the Douglas. Success immediately followed and in a mere seven years the machine became so famous that in 1914, when war broke out, Mr Douglas, with his now large factory at Kingswood, Bristol, was called upon to manufacture motor cycles for active service. It is reputed that 50,000 WD Douglases were supplied. We tender our deep sympathy to his daughter, Mrs Jefferies; his wife and three sons, John, William and Percy, all died before him. Mr. Douglas' death severs an important link with the early history of the motor cycle; his name ranks high with those pioneers who have been responsible for the motor cycle's success."

EVERY VEHICLE registered after 1 January 1937 was required to be fitted with a speedometer able to "indicate to the driver within a margin of accuracy of plus or minus 10%, when he is exceeding 30mph". And they had to be fitted "in such position as at all times readily to indicate". The Blue 'Un noted: "This may not affect the different types of mounting at present employed on motor cycles, but it will mean that new machines registered on and after October 1st will have to have their speed indicators illuminated at night. Perhaps this will hurry on the day when we have speedometers mounted at an angle in the rear of the head lamp in accordance with the scheme already adopted on certain Continental machines. In these cases the speedometer head is as a rule both small and light, and, therefore, has comparatively little effect upon the total unsprung weight."

"THERE is a slight, but not unimportant, difference in the silencer regulation. Instead of the law saying that the noise must be reduced 'as far as may be reasonably practicable', it reads 'as far as may be reasonable'—which is a distinction with probably a big difference when it comes to a court case. Other points are: No bells, gongs, or sirens are allowed as warning signals; no avoidable smoke may be emitted; motor cycles must have mudguards that 'catch so far as practicable mud or water thrown up by the rotation of the wheels' (this could be construed as the death warrant of the sports-type guard!); motor cycle brakes mast be sufficient 'under the most adverse conditions to bring the vehicle to rest within a reasonable distance' (Query: What is reasonable on wet ice?); it is an offence to cause any unnecessary obstruction through parking on a road; no motor cycle may draw a trailer wider than 5ft or heavier than 5cwt unladen. This last point may seem to affect only those who use trailer caravans, but bear it in mind if you want to tow a broken-down vehicle."

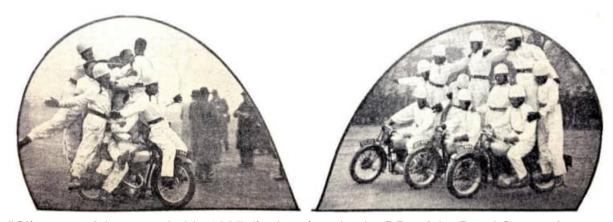
"LONG LETTER FROM Len Duckworth, once of Manchester, now of Toronto. Len describes a relationship with mobiles rather different from that which obtains at home. He and some pals got pinched for doing 73, and were promptly led to the local judge—a butcher in private life—and deprived of three dollars apiece. But as a sympathetic rake-off, the day being fine and the roads Moderately clear, the cop said, "Now you lads, follow me, and there'll Ire no pinching." He then trod on the gas of his Harley and, with siren screaming, gave them a few miles up to 80! Len almost persuades me to emigrate. That experience would be well worth 15s."—Ixion

I OFTEN have letters from lads whose parents are sticky about their buying a motor cycle, but never before, unless memory betrays me, have I had one from a lad whose fairy is the obstacle. She says: 'What about me? I can't wear anything nice,' and 'How about if it rains in torrents after a fine morning has suggested a sunny day? "Well, well! I could spill a bibful. Having curbed my natural ferocity I now proceed to coo at my correspondent. In your future love nest somebody is going to wear the trousers—and that somebody ought to be you. This matter is far more serious than you perceive. You won't solve the real issue by surrendering and murmuring: 'Very well, darling, we'll have a baby car,' for the next phase will be that you'll want a Mortin Eight and she'll want an Ausger Seven (forgive my Ann Temple\* treatment of this emergency). There are other possibilities. One is that you are not enough of a he-man to be worthy of our noble order, and that a glass box on wheels will suit you better, but even then you should never have let matters come to a pitched battle with you ear-marked as the loser. It may be that she is such a 'wow' (as I believe infatuated Americans in moments of extreme collapse call their girls); that she is worth any sacrifice; but even then you should never let her know what a value you place on her. Finally, assuming that you are the right breed to make a good motor cyclist, and that she is a green-house plant, it is obvious that the pair of you can never establish that camaraderie, etc. In other words, get the ring back."—Ixion \* Ixion was right on the ball. In 1936 the Daily Mail launched "Ann Temple and the

Human Casebook. Through its intimate service, the Human Casebook is intended to bring success and happiness to all readers with personal problems and troubles, great or small, real or imaginary. Cases of the most general interest will be dealt with daily, the necessary anonymity being employed..." It was the first 'agony aunt' column.—Ed.

"I WAS VERY INTERESTED in Ixion's comments under the 1 heading of 'Convincing the Fairy'. I think that she most definitely does not want to wear the trousers, she wants to wear pretty frocks and be really feminine. And why a car as the only alternative? Why not a sidecar outfit and let both be happy? I rode pillion for three years and loved every minute of the riding, but it wasn't much fun to arrive at the sea in leather coat and crumpled frock, or breeches and woollen hose, and see everybody but yourself looking dainty. So, when we got married the machine got married, too, and both have had two happy years running in harmony. Let it be whispered, 'hubby' rather likes parking his waders and leather coat in the sidecar and helping to get motor cyclists a good name for looking neat and well dressed, even after a long day's run.

Freda T Hancock, Stretford."



"Glimpses of the remarkable 1937 display given by the DRs of the Royal Corps of Signals: Pity a poor 250, it is carrying over a ton. Note the effect upon the rear tyre. (Right) A convincing demonstration of the controllability of the modern motor cycle."

"LAST THURSDAY EVENING a small number of people who had assembled outside the Cyc-Auto works at Park Royal, London, were privileged to see the successful finish of a run from Land's End to London on a 98cc Villiers-engined Cyc-Auto. At 8.15am that morning the rider, Mr HA Atkins, wearing no more than a scarf and mackintosh over his plus-fours suit, had set off from the Land's End Hotel. Twelve and a half hours later, looking as fresh as the proverbial daisy, he was sitting inside the Cyc-Auto works, waiting to go on to a dance that same night! His average speed, including all stops, was the extremely creditable one of 24.16mph for the 302 miles. Throughout the journey, the little Cyc-Auto—a standard 1937 model—was under the official scrutiny of Mr EB Ware, of the Auto Cycle Union. His records show that only two involuntary stops were made, one to attend to a loose chain-guard and the other to remove a bee's sting from Mr. Atkins' chin! For the whole of the journey the tiny Villiers engine ran like clockwork,

seemingly going better and better as the miles were piled up. Practically no pedalling was required, in spite of the many steep gradients encountered in the West Country even on this part of the run the CycAuto was averaging between 22 and 25mph. Exeter was reached by 1pm, and Yeovil at 3.30pm. From Salisbury onwards a steady 35mph was maintained, and between 7.15pm and 8.15pm the greatest distance was covered in the hour—29 miles. Except for a few spots of mud on the mudguards the Cyc-Auto completed the run with its showroom finish undimmed. The engine was entirely free from oil leaks and there were no signs of oil spray from the carburettor. As soon as the machine had been checked in a member of The Motor Cycle staff was allowed to have a short run on it. The engine ran so evenly that turns could be made in the road without pedalling or altering the throttle setting. But the most surprising feature of all was the machine's acceleration, which was as good as that of many machines of twice its size. Another noteworthy point was the almost complete absence of vibration. It was difficult to believe that this little machine had made the long, tiring journey from Land's End to London at an average speed of over 24mph, and that the consumption of petrol had been at the extremely economical rate of 120mpg. A very commendable all-round performance."





"The start: At 8.15am, as the 98cc Cyc-Auto is about to leave the Land's End Hotel: 12½ hours later the machine was in London." (Right) "The finish: HA Atkins being congratulated after completing the 302 miles between Land's End and London at an average of over 24mph."

"A NEW ROAD-RACING circuit is being constructed at Bathurst, NSW, Australia."

"A MOTORIST DRIVING along at Merton (Surrey) fell out of his own car! He was injured; the car careered on and over-turned."

"MOTORIST AT HIGHGATE: 'The constable said he would report me for allowing gas to escape from my exhaust. He tapped the exhaust pipe and out came three carbon copies.'"

"CLEM BECKETT, A speedway star at White City, Manchester, in the early days of the sport, was killed while fighting for the Government forces in Spain."

"MR HORE-BELISHA recently revealed that road works costing £72,000,000 have been approved by the Ministry."

The Arbuthnot Trophy Trial, set up for serving officers in the Royal Navy, was finally opened to 'other ranks'.

"IT IS ESTIMATED that over £75,000,000 will be paid by motorists in 1937 in direct taxation, fuel tax and driving licence fees."

The Law Society took action against lawyers who were using 'touts' to contact road accident victims.

Some 75% of British bikes were supplied with four-speed transmission, up from 50% in 1935. In the same period footchange usage rose from 24 to 65%. Nearly 10% were unit construction and 1.3% featured gear primary drive.

"AN ITALIAN CLAIMS to have discovered a plant in tropical Africa from which motor spirit may be produced."

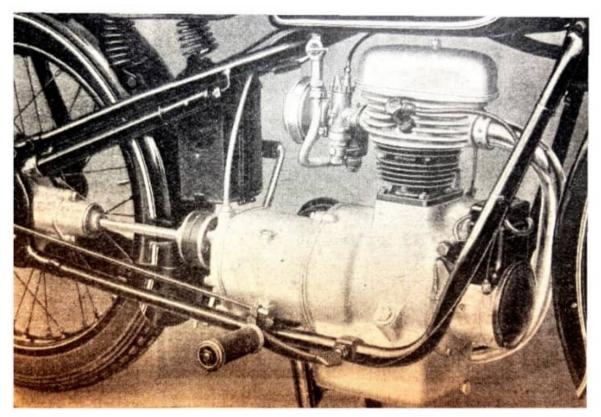
"THERE WERE approximately 26,000,000 motor vehicles registered in the United States last year."

'THE SOUTH AFRICAN JUNIOR TT was won by A Reeve (348cc Norton) at an average speed of 77.99mph. HG Welsh (Norton), a rider taking part in his first TT, was second, and A. Hertenshaw (Norton) was third. Retirements were heavy, only four finishing out of eleven starters. In the Senior TT, run in the afternoon, Don Hall (490cc Norton) made amends for his failure in the morning's Junior race by winning at record speed and putting up a lap record which clipped 13sec off the old record set up by J Galway last year."



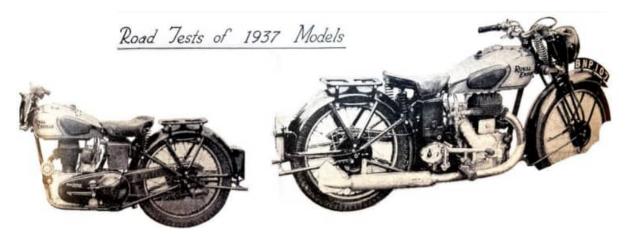
"MORE ABOUT USA COPS: (1) Their radio (when fitted) has a 200-mile range. (2) They carry two guns. One to start business with, and the other to carry on when No 1 is empty. (4) They do 90 per, reduced to 80 per plus windscreen in cold weather. (4) They don't bother to do their 90 per after a. mere speedster, but phone to another cop farther up the road who then stops the said speedster. The 90 per is re-served for bandits, Public Enemies (Nos I to X), and so forth. (5) They get a new bus every year (oh, boy!). No, they haven't told me what happens to the old buses!"—Ixion

"A PARTICULARLY NEAT 200cc ohv machine has recently, been added to the BMW range. In general design it closely follows the larger models in that it has unit construction, shaft drive and telescopic front forks. The Model R20, as it is termed, has a duplex cradle frame of tubular construction, and its combination of welded and bolted joints is said to ensure great rigidity. The single-cylinder engine has a capacity of 190cc (60x68mm) and is fitted with an aluminium head. Total enclosure is employed for the valves, rockers and push-rods. The camshaft is chain driven. Ignition is by coil, the dynamo being housed in front of the engine and driven directly from the mainshaft. A constant-mesh type three-speed gear with foot control is employed, and this-works in conjunction with a single-plate dry clutch. Special features include an Amal carburettor with an air cleaner, knock-out spindles to both wheels, and a speedometer mounted in the rear of the head lamp. Fully equipped the machine weighs 2361b, and a speed of 50mph is claimed."



"There is only one exposed moving part on the new 190cc BMW—the shaft drive to the rear wheel. As can be seen, the engine-gear is exceptionally 'clean' in design."

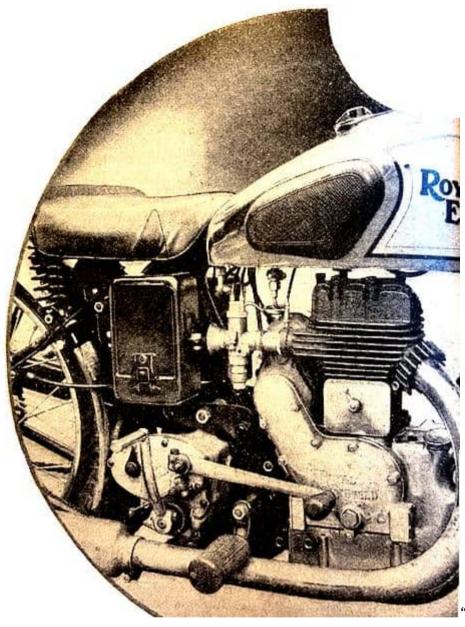
"LAST WEEK I WENT to the opening ceremony at each of two new road-racing courses. Methinks the Brooklands course will be considerably faster than the slightly shorter Crystal Palace circuit. This is fairly obvious, for the former includes quite a large slice of the outer circuit. The Palace, although slower, is likely to be more spectacular with its many twists and turns, no two of which seem alike. It seems to me that the Palace course will probably suit motor cycle racing better than car racing. Those motor cyclists I spoke to at the Palace were highly enthusiastic, and more than one was audacious enoughto suggest that the motor cycles will probably be faster than the cars. Both courses will provide magnificent racing."



"The attractive and businesslike lines of the Royal Enfield are revealed by these near and offside views."

"SIDE-VALVE ENGINES HAVE always been noted for their sweet running and smooth delivery of power. Even for a side-valve, however, the 346cc de luxe Royal Enfield submitted for test is exceptional. It is a most attractive machine with an exceedingly comfortable and natural riding position. All the controls are readily accessible and work with a precision that is usually only to be found on expensive mounts. The gearing of the kick-starter is just as it should he, calling for a minimum of effort. Idling was very good indeed, and even at these low engine speeds the mechanical silence was most praiseworthy. The mechanical silence of the engine was admirable throughout its speed range, and at the same time the exhaust note was well subdued. The steering and handling of the Royal Enfield were such that it was difficult to realise that the machine was not a 250. Despite the fact that no steering damper is fitted the handling at high speeds was beyond reproach, although over certain surfaces the tail be-came a trifle lively. Because of its light handling the Royal Enfield could be swung round bends with every confidence, while greasy surfaces could be almost ignored. No doubt the efficiency and smoothness of the brakes played a big part in inspiring such confidence. Both back and front brakes are light in action, but possibly the front brake could have been a trifle more powerful. On the open road the engine appeared to be perfectly happy cruising along at any speed up to 55mph. It was practically vibrationless except for a slight period at 50mph. Most main road gradients could be taken at 40mph. In traffic the flexibility and docility of the engine proved a boon. The gear ratios are extremely well chosen, and the foot gear-change calls for high praise. The pedal has a very short travel, and the lightest touch is all that is necessary to select a gear. The gear box itself is so quiet that it cannot be heard from the saddle—no matter what gear is engaged. In low gear the maximum speed was 28mph, while in second a speed of 41mph was reached. In third gear 50mph was attained, a speed which gives a good indication of the Royal Enfield's sporting qualities. The mean speed of four runs in both directions over a measured quarter-mile in top gear was 60mph, the best run being accomplished at 62mph. Acceleration figures in the various gears from 15mph to 30mph were good, too. Over a quarter-mile the best speed attained from a standing

start was slightly in excess of 50mph. Up to this speed this side-valve could hold its own with most standard machines on the road. In spite of its lively performance, the engine could be throttled down to the surprisingly low speed of 8mph in top gear—and it mattered not whether the ignition was advanced or retarded. It could be accelerated from this speed provided the throttle was opened gradually until 15mph was attained, when the surge of power was delightfully smooth. Such tractability is, of course, one of the main charms of a side-valve engine. But in the case of the Royal Enfield it is to be found at its best. The smooth pulling at low speeds in top gear came most unexpectedly from a single-cylinder four-stroke, even though it be a side-valve. It enabled the rider to enjoy traffic work in a manner which is usually associated only with multis. As a general rule it was unnecessary to change down into third gear when rounding corners. But when a quick getaway was desired, then the Royal Enfield could deliver the goods, provided third gear was used. It can truthfully be said that the 350cc side-valve Royal Enfield does its job in the quietest and most unobtrusive manner possible. A part of the test included riding over wet roads and slippery by-lanes, and this was sufficient to prove that the mudguarding is thoroughly efficient. Very few mud splashes appeared on the machine, while the rider's legs were



Fully enclosed

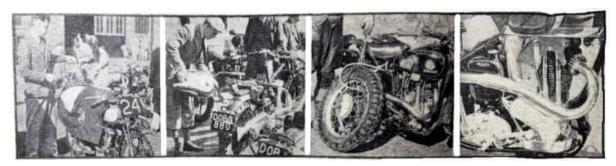
valve gear and gear change mechanism are features of the Royal Enfield. Note the gear indicator on the outer casing of the gear box."

unusually well protected. The front forks had a satisfactorily large range of action, yet there was no trace of the forks bottoming, even over really rough going. Rubber buffers mounted one on each side of the base of the steering column prevent the front forks from damaging the tank should the machine be accidentally dropped. They do not, however, interfere with the steering. lock, which is commendably wide. Throughout the test the Royal Enfield remained both clean and oil-tight. A negligible quantity of oil was consumed. Petrol consumption at a maintained 40mph was 78.2mpg, giving a, touring range of 215 miles. The machine is fitted as standard with a de luxe equipment that includes a detachable rear mudguard and carrier—to provide ready access to the Wheel—Enfield cush drive in the rear hub, Lucas six-volt lighting with voltage control, and enclosured valve gear. A tank panel is fitted, and this contains a switch which

controls the lighting system. The head lamp relieves the driver of much of the strain of night riding, for it provides a beam that is excellent both as regards distance and width. A dip-switch is conveniently mounted on the handlebars. No adjustments were necessary during the test, a point which is well in keeping with the high-class finish of this quality side-valve. It is a motor cycle which will make a keen appeal to those enthusiasts who require a lively performance on the open road allied to docility for town work."

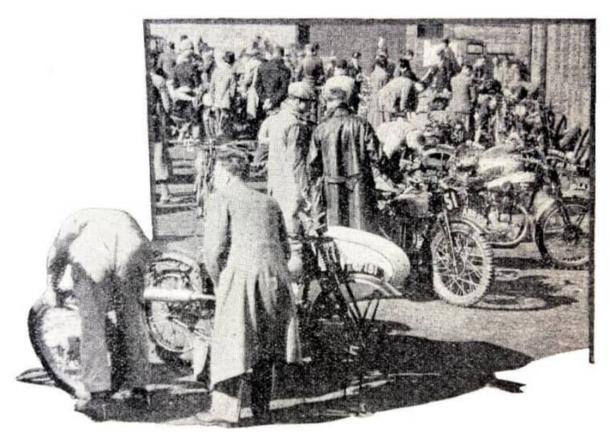


"THE ORGANISERS OF the Scottish Six Days Trial have every reason to congratulate themselves. Never has there been a more perfect day for weighing-in than last Sunday. The sun shone out of a cloudless sky; it was cool enough to allow those inevitable last-minute adjustments to be carried out in comfort, and hot enough for the officials and accessory magnates to stand about without their opulent-looking overcoats. On the Saturday night competitors and officials had worked up plenty of 'Scottish' atmosphere at the Edinburgh Club's headquarters, but there were no thick heads—among the riders at least—on Sunday. Both on Saturday and Sunday the main topics of conversation concerned the new rule allowing spares to be carried...at the weighing-in there were two distinct schools of thought. One is typified by the veteran Bob MacGregor, who is carrying a full complement of spares on his Rudge—even down to a hammer and a bottle of bismuth tablets! All spares had to be declared at the start and Andy Pattison has a list of each man's bits and pieces. Jack Williams and Miss Marjorie Cottle are typical of the second school. Both are carrying spare cables, a footrest and a fork spring. Miss Cottle is very sincere in her



L-R: "Straight from the works: Allan Jeffries unwraps his 343cc Triumph. Memories of the past? Michael Riley makes quite sure that there isn't any foreign matter in the tank of his BSA. J Sellars tries the fixed pump arrangement of his 248cc camshaft OK Supreme. The very smart carburettor shield fitted to the Wolsey brothers' Red Hunter Ariels."

theory that whatever one carries it's always the other thing that breaks. This spares question caused lots of fun at the weighing-in. George Rowley looked very serious when he told Andy that he had a spare cylinder barrel and crankpin, but had been forced to leave the spare flywheels behind owing to the extra weight being too much for his 250. The team of AJSs looked extremely businesslike—the riders are Whitton, Povey and Rowley. The machines look very small and light and each has a bottle of compressed air neatly fitted to the near-side rear fork stay, with a long connection that will reach either wheel. More ingenuity is displayed as regards neat fittings for spares and tyre repair equipment than ever before, and competitors were proudly showing-off their various gadgets. M Riley (499cc BSA) has spring-loaded holders for a big tyre pump and a very special rear wheel spanner. Len Heath has four Lycett saddle elastics on the front forks of his Ariel—spares that also act as a support for the fork spring. Each elastic is joined at the ends with a spring chain link. Heath also has several light spares packed in the compartment in the petrol tank where the speedometer is usually fitted. Most of the team machines have had special preparation for rapid attention to tyre trouble. The Royal Enfields have short, but heavy tommy-bars on the rear-wheel spindles. The nuts are actually part of the tommy-bars. Several riders have box spanners and tommies held in position on the wheel nuts with rubber bands, and almost every competitor has a pet



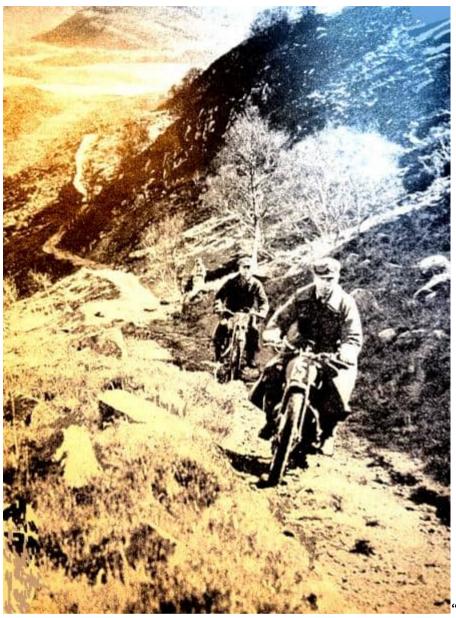
"A glimpse of the weighing-in. In the foreground is A Calder busy on his Triumph outfit."

method of removing the wheel quickly. The Ariel, Rudge and Triumph teams all had an air of quiet confidence at the weighing-in, but on paper all the trade teams look extraordinarily good, and no one, was offering long odds on the team prize winner. This year the Southern party is rather smaller than usual, and only about a dozen came up on the night train from London. But, as one member said, 'It's the quality that counts.' The Wolsey brothers have gone to considerable trouble over the preparation of their machines. They have identical Ariels with the same spares and gadgets. The only difference between the two models is one number in the registration figures. Their spares are mounted as follows: footrests bolted on the front engine mounting; rear wheel spindle taped across the frame behind the saddle; fork spring hung behind the saddle down tube; saddle spring and footrest hanger taped to the elastics of the saddle; spare cables taped alongside those in use; and spokes taped on the inside of the halfround mudguard stays. In addition, they have a saddle mounting three inches higher than standard, and beautifully finished chromium-plated carburettor shields. On **Monday** the competitors were greeted by brilliant sunshine when they arrived at the official garage shortly before eight o'clock. The two men who



"Worrying minutes! A group of competitors waiting their turn at the foot of an observed section. The riders (left to right) are J White (497cc Ariel), H Brown (348cc Norton), JA Dunlop (346cc Royal Enfield), TC Whitton (346cc AJS), CN Rogers (346cc Royal Enfield) and JH Wood (343cc Triumph)."

had been granted extensions, AA Smith (Calthorpe) and JA Dunlop (346cc Royal Enfield) had completed their repairs and weighed-in before the start. The German rider, C Jurisch, failed to arrive, and J M'Arthur (490cc Norton) withdrew his entry before the start owing to 'pressure of business'. As zero hour drew near the riders began to don their riding kit, and it was apparent that one-piece suits are easily the most favoured this year. Just outside the start the traffic lights had been turned off to enable the trial to pass without hindrance. Quiet roads led to the outskirts of Edinburgh, and then the main mall to the West was followed for 20 miles. It was cold riding, but as bracing a morning as one could wish for. Just outside Bathgate was the first hill, Hilderston. This year it was fairly easy, but even so it provided a few anxious moments for several of the entry...From Hilderston the road struck north, crossing the Forth by the new bridge at Kincardine, then on by Dollar and Crieff to Aberfeldy, where competitors headed west down the south side of Loch Tay on the way to the second observed hill at Taymouth. Taymouth Hill was in easy mood; it was dry and most people ascended without difficulty. The trio of 125cc Excelsiors climbed it and



"A photograph taken

on the Lochaltort section which shows the magnificence of the scenery through which the 'Scottish' passes. The leading rider is JA McLeslie (495cc Rudge), and following him is M Riley (499cc BSA)."

demonstrated just how easy to handle they are. At the top of the hill RT Newbery (497cc Triumph) took the wrong turning and went some 15 miles towards Kenmore before discovering his mistake...Cambussurich saw the first real blotting of the clean sheets. The hill was dry and the two dreaded bends near the top were easier than usual, but the lower reaches had one or two very bad rocky portions that tricked many riders. JC Edward (495cc Rudge) led the way but he was thrown to the bank and had to foot hard to regain control...GE Rowley (246cc AJS) was spectacular in the extreme, for he hit two of the largest rocks with both wheels, the model shot nearly two feet into the air and all but threw the rider. George clung on but just when he seemed to have the situation in hand the engine stalled...NJ Wolsey (497cc Ariel) had a colossal fight with the model

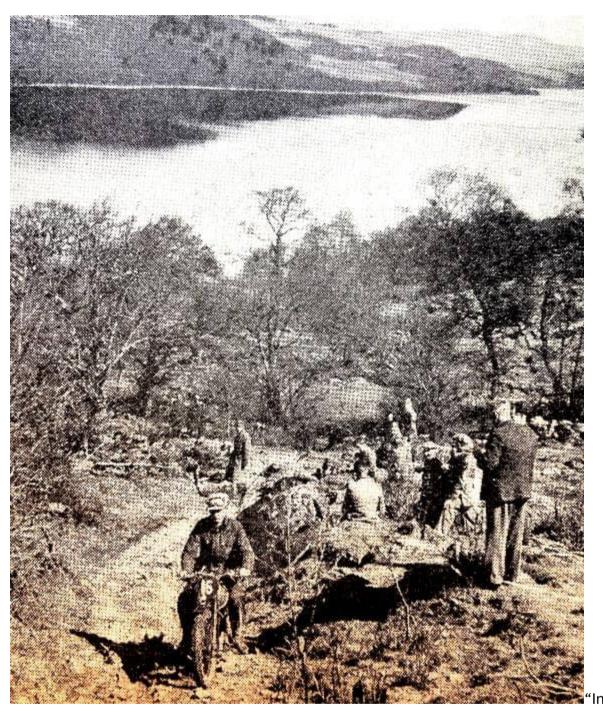
and eventually won. ID MacIntyre (Royal Enfield) turned round and sped downhill before he could stop; and RSL Harding (497cc Triumph) footed more than he should have done. A Jefferies (343cc Triumph), however, got out of a hectic situation by sheer determination...JJ Booker (499cc Royal Enfield) visibly sighed with relief after negotiating a bad patch. J White (497cc Ariel) just swayed hi. body and the model went where he desired. Aviating front wheels were not uncommon, though H Brown (348cc Norton) probably took the honours for the front wheel highest in the air. **Tuesday's** run of 142½ miles was probably the most difficult of the whole week. Promptly at 8am the competitors left Fort William and rode via Ardgour, Strontian and Salen to Kinlochmoidart. At the last-mentioned place they encountered the long and stony Devil's Staircase, the severest hill of the trial that caused the downfall of even the experts. Devil's Staircase was introduced in



"A striking impression of the rider who made best performance in the 'Scottish', Jack Williams (348cc Norton), on Stoney Brae. Here is seen that amazing control over machine that spells success."

the trial last year at the suggestion of one of the competitors, ID MacIntyre, who lives at Mallaig. But in addition to losing marks on the hill, many competitors lost marks on time, for the 'road' sections between checks precluded fast work. The morning began

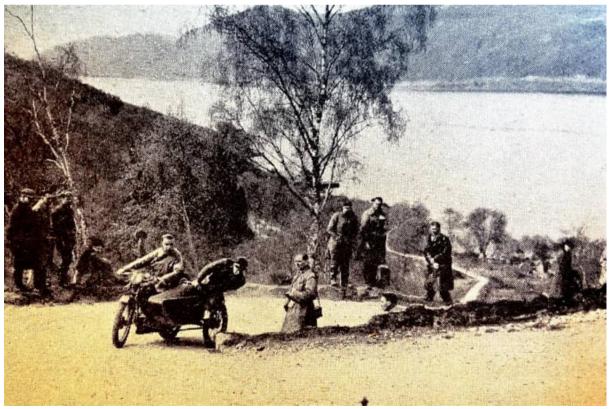
badly for everyone. During the night a heavy mist had settled on the mountains, and when competitors set off it was through 'Scotch mist'. The route skirted the north side of Loch Eil, doubling back on itself at the head of the Loch to hug the opposite shore, eventually bringing competitors to Ardgour, Salen and Kinlochmoidart. The going was rough and twisty, but between Ardgour and Salen the mist cleared away, and as competitors ran into the check at Kinloch-Moidart the clouds were breaking up rapidly. Immediately after the check the road deteriorated into a rough pony track, rocky and twisty in the extreme, and with many severe gradients. On this track the four observed hills for the day were situated, the observers having walked several miles to be at their posts. Incidentally, the track between Kinlochmoidart and Lochailort is known locally as Prince Charlie's road, for the Prince landed at Moidart when he returned to Scotland to start the 'Rising of '45'. Very near the start was the Devil's Staircase. The hill has a very rocky surface and there are three acute hairpin bends set close together, the whole set on a gradient of about 1 in 4. Nobody managed the hill clean, but several competitors covered either one or two of the three sub-sections feet up, and many fine displays of machine control were given. The first bend was by far the most difficult, and every competitor had to give at least one dab to help the machine on the apex of the corner. The second sub-section consisted of the other two hairpin bends, while the third included a slight bend and a great many rocks. DG Nimmo (497cc Ariel) footed round the bends and was clean on the top section; JS Edward (495cc Rudge) did the same. AE Perrigo (348cc BSA) made a magnificent attempt and rode feet up round the second bend, and was half-way round the third when the front wheel struck a big rock and he stopped. He restarted on the bend and proceeded to ride the top section clean. LG Holdsworth (499cc Royal Enfield) adopted the dodge of slipping the clutch and making it bite fiercely on the bends, so that the rear wheel would skid. This method was all but successful, and two quick dabs were all that were required. Another excellent



the bright sunshine, Len Heath (497cc Ariel) tackles rock-strewn Cambussurich."

climb was made by Jack Williams (348cc Norton), who only touched twice. LJ Manley (499cc BSA) made a neat, unspectacular climb but G. Rowley's 250 AJS seemed rather peppy for this type of hill, and George contented himself with a safe footing ascent. Even Len Heath (497cc Ariel) footed on the bends. R MacGregor (495cc Rudge), however, had the hill well weighed up, and after a dab on the bottom bend proceeded to ride round the other two in a superb feet-up climb—a wonderful demonstration of machine and throttle control...After climbing The Ravine it was a case of riding as hard as one could if the check at Lochailort was to be reached on time, for the track was shockingly rough and rocky. When the check was reached, a great many, competitors

were late. Miss Marjorie Cottle (249cc BSA) arrived with a flat tyre, having ridden with it flat all he way from the last check. She changed a tube and dashed off again quickly, but on the way to Mallaig the tyre walls chafed the tube. She continued to ride the model, but the vibration broke the mudguard stay, which proceeded to cut the tyre nearly in two. After limping into Mallaig this gallant lady had to retire, for a new tyre could not be obtained. Between Lochailort and Mallaig came another section where no time could be wasted. The road is rough and twists continually—there is, indeed, barely 50 yards of straight in the 17 miles. Wednesday was another day of sunshine, wonderful scenery and rough going. Once again the Moidart Mountains were visited and Prince Charlie's. Road covered. This time, however, the course was tackled in the opposite direction and several hills that were descended on Tuesday served as the observed sections on Wednesday. In some respects the day was a half-day for competitors, for the route was less than 100 miles long and the trial started at 9am—an hour later than usual, and the last competitor was in the garage by four o'clock. On the hills, Tuesday's story was repeated, for every competitor lost marks on at least one hill, The Ravine, while the other hill in the Moidart section—Bay Hill—caused many failures among the later numbers. From Fort William, Tuesday's route was followed in the reverse direction to Lochailort. From there the rough pony track going out into the wilds was picked up. It was drier than it had been on Tuesday, but its character looked



"An unusual scene in the 'Scottish'. H Tozer's passenger keeps the sidecar wheel of the BSA down on one of the many corners of Inverfarigaig."

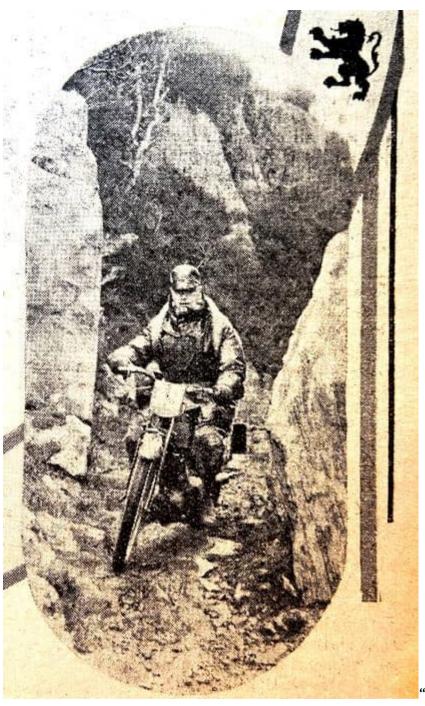
entirely different when taken in this direction. However, competitors . bad more time to admire the scenery, for there was only one check at the far end of the section. And what scenery! Vivid blue lochs sparkling in the brilliant sunshine and green-clad hills and snow-capped mountains. Fresh vistas kept opening up to the right, where the track runs along the coast high above the shores of Loch Ailort. Farther on the track skirts the Bay of Arisaig before striking inland over the peninsula to Kinlochmoidart. After three very strenuous days competitors were given something of a rest on Thursday. Although the route was 191 miles long only three observed hills were climbed and none caused a wholesale loss of marks. This year no tyre-changing was allowed on Wednesday night, but competitors could change tyres in their running time if they wished. Several men decided that their tyres had had enough rough going on the two previous days, and in the morning some half-dozen or so fitted new rear tyres. Among them were R MacGregor (495cc Rudge), A Jefferies (343cc Triumph) and FE Thacker (343cc Triumph). All of them had the new tyres fitted and the machines ready for the road within the quarter of an hour allowed for adjustment. MacGregor actually had his wheel out in six seconds! Other competitors occupied their time checking over their models and replacing bits and pieces that had been either knocked off or had fallen off on the atrocious Prince Charlie's Road. Once more the start was at 8am; for a long mileage had to be covered during the day. From Fort William the route struck north to Spean Bridge, following the shores of Loch Lochy and then going on to Fort Augustus. Here the main road was forsaken, and the road over the old-time test hill at Glendoe was followed. The road now is in fairly good condition but it still rises and falls and twists and turns for some 15 miles...From Inverfarigaig the route ran over the moors for a few miles, rejoining the main road just before Inverness. Hive Brae, near Strathpeffer, was the next piece of



"Mr. Secretary Arnott starts TC Whitton (348cc AJS) in the special timed test on Inverfarigaig. Behind Is No 24, A Jefferies (343cc Triumph)."

excitement. But the hill was dry, and the rounded stones on the, surface caused little trouble. For one person, however, the hill spelt disaster. R MacGregor (495cc Rudge), who until then had lost fewer marks than anyone, caught a tree bough with his arm and was brought to earth...In the sidecar category, R Tozer (499cc BSA sc), who was leading the class, was the only one to fail; the other two got up without fault. And at the end of the day all three drivers had had one stop. Lunch was taken at Strathpeffer, and from there it was only a matter of keeping to the time schedule on the 100-mile run back to Fort William. Friday was a vital day for everyone, and the day on which nearly all the important awards were lost and won. Competitors started the day's run with the knowledge of how they stood, because the previous day the committee cleared up the question of the marks lost on time on Tuesday. It was decided that 10 minutes' allowance would be given at the Lochailort check, where over 90% of the competitors were late. At this stage only a very narrow margin separated the leaders of the various classes. Bert Perrigo, for example, led the trial by one mark from Jack Williams, while the Rudge works team were only a few points ahead of the Triumph and AJS teams. The morning was glorious and as the trial left Fort William, after a stay of three days the sun shone out of a cloudless sky. Lunch was taken at Killin and then the northern road along the shores of Loch Tay was followed en route for the dreaded Stoney Brae. In the

sunshine the Loch looked at its best and nearly everyone dawdled as far as Kenmore to enjoy the magnificent scenery. Then on to Dunkeld—and Stoney Brae. When the observers arrived at the hill they found that many huge rocks had been scattered. about the surface. Some of these were removed and as a result, the hill lived up to its name of being stoney rather than rocky. Clean climbs of this long hill were few, but some very good performances were put up by riders who would have had a severe shock if the hill had been included on the first day. DG Nimmo (497cc Ariel) led the way with a good climb. WN Watson (125cc Excelsior) got half-way up before having to use his feet. WJ Smith (346cc Levis) had rather a fight with the model, but was clean. After M Riley (499cc BSA) had made a neatly judged ascent, AE Perrigo (348cc BSA) came up in great style. He got round the slight bend half-way up, following the track taken by all the others. Then, in order to avoid a huge boulder he decided to go to the left, changed his mind and tried to go to the right, and hit the boulder with the front wheel. The wheel reared up and Bert had two dabs before the model was under control again. Jack Williams (348cc Norton) became the new leader of the trial and he had an anxious moment when one of the footrests hit a rock, but he mastered

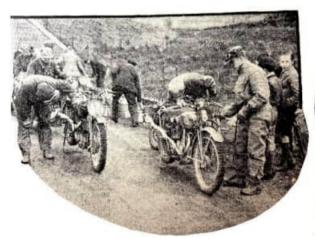


"Yes, definitely solos only!

JJ Mitchell with his little 125cc two-stroke Excelsior on the way to Lochailort."

the situation cleverly. Len Heath (497cc Ariel) just saved the model from stopping the bend, and A Jefferies (343cc Triumph) rode over an observer's leg in avoiding a particularly nasty piece of rockery. Not for a long time has **Saturday** morning's run played so important a part in the allocation of the awards. When Friday's result sheet was posted up in the official hotel at Perth it was seen that only two marks separated the first four solo men in the trial, while the AJS, Rudge and Triumph teams were all in the running for the team award. To add to the excitement, Saturday's hill—Carron Bridge—was a new find by the Edinburgh club officials. And whereas Saturday's run is usually a fairly easy one, this hill put quite a different aspect on the morning. As the trial

left Perth the sun shone brilliantly. The route struck south to Dunning, and then along a very twisty road. over the Ochil Hills to Dollar. More than a few people were thankful for this twisty road, for it kept minds off the hill that was to come. From Carron Bridge it was a straight-forward main-road run to Edinburgh, where the stop and re-start and brake tests were held on Blackford Hill. Only two people lost marks here, ID McIntyre (148cc Royal Enfield) and AA Smith (493cc Calthorpe). At the final examination of machines not a single mark was lost on condition—a fine tribute to the modern machine after such a strenuous week. This year the final, tests were got through much more, quickly than previously. All that remained was the prize distribution and film show in the evening. Here everyone was in the best of spirits, and all agreed that it had been one of the finest weeks ever. Thus another 'Scottish' ended. It had been a perfect week as regards weather, and covered much of the finest trials ground in the country. The heartiest congratulations must be offered to the Edinburgh Club and officials for organising such a fine sporting holiday, with 100% efficiency and less than 1% red tape. Special Awards. Best individual performance: J Williams (348cc Norton), 10 marks lost. Best Sidecar: HJ Flook (490cc Norton sc), 24 marks lost. Manufacturers' Team Prize: Triumph team (A Jefferies, FE Thacker and H Sim), total marks lost, 58. Club Team Prize: Birmingham MCC (AE Perrigo, GF Povey and VN Brittain), total marks lost, 49."

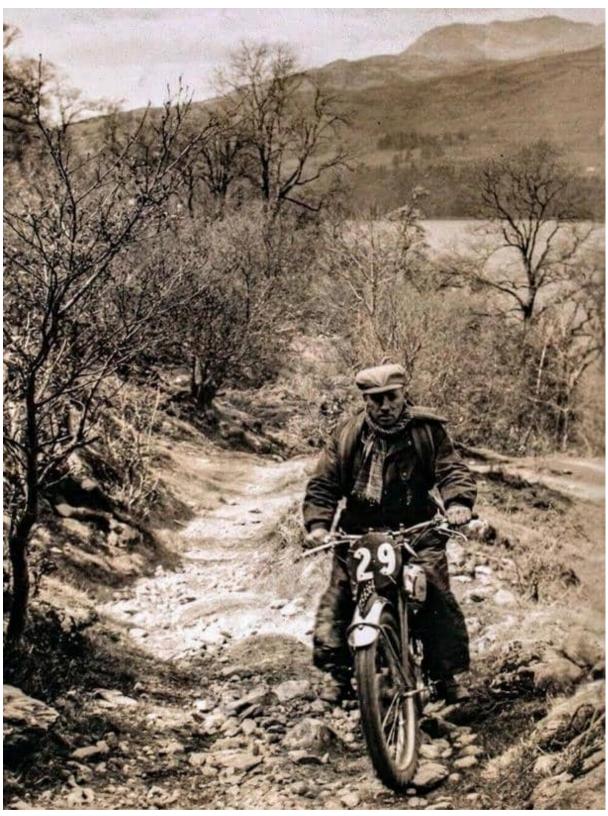




"At the petrol check outside Fort William. AE Perrigo (348cc BSA) carries out a fork adjustment, while R McGregor (495cc Rudge) examines his machine." (Right) "Competitors on The Ravine watch the climbs of the earlier men."

"AT THE CONCLUSION of the Scottish Six Days it seemed to be the general conclusion that, this year's trial had been the most successful for years. As chairman of the Edinburgh & District Motor Club I feel it is only right publicly to thank everyone who worked towards that end. The club was fortunate in choosing Fort William as a centre. The Town Council, with the Provost and Bailie Gardiner leading, did everything they could to help us. The police also helped us in every possible we', The Highland Hotel was undoubtedly the key to the social success of the trial, and to Mr and Mrs Howe and their staff are due a large measure of thanks for their willing and obliging service at all

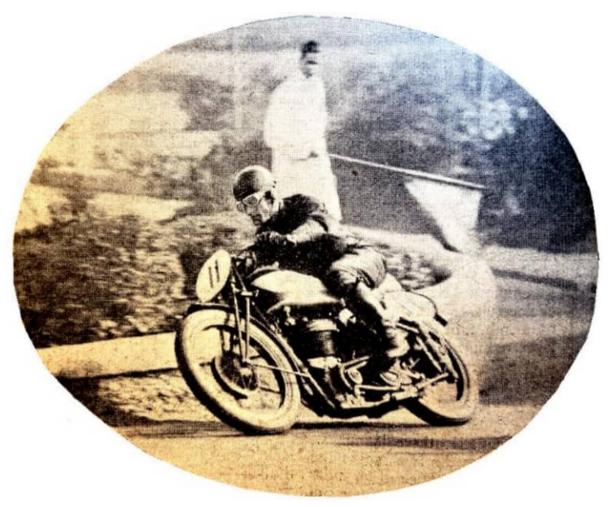
times. Mr Duncan Grant, of Marshall & Pearson's Garage, has always been a good friend to the club, and a great deal of credit is due to him for his assistance both before and during the trial. George Rowley said on Saturday night that it would he unfair to mention any particular official where all had been 100% efficient. The club has to thank them all, especially the gentlemen who put their cars at the disposal of the club for the week. Apart from their official duties, G Macintosh put in hours every night at the piano, and G Simpson went to a lot of trouble and expense to provide cinema shows of the trial. I feel I must refer to Mr P. Chamberlain for his unfailing assistance to the club at all times, to the competitors for the sporting way they conducted themselves during the week, to the petrol, oil, tyre and accessory representatives for the very able way they organised their supply service. A special word of thanks is due to those kindly people of Glenuig and district. A cattle sale was held at Salen on Tuesday and most of them had brought in their beasts on Monday night so that the roads would be clear for on the Tuesday. Thanks are also due to the Midland Centre and Bradford Clubs for putting up awards for their members, to Mr A McNaughton for his award of a silver shield, and to Mr J Beck for the Jimmy Beck Memorial Trophy. In conclusion, we thank The Motor Cycle and Motor Cycling for their assistance in giving publicity to all advance information, for their always helpful criticism, and for their very able and full reports of the event. Thanks to you all. Andy Pattison, Chairman, Edinburgh & District Motor Club."



A Norto. rider concentrates as he tackles an SSDT track.

"JG GUTHRIE, RIDING a 349cc spring-frame Norton, secured major honours in his first race of the season—the Leinster '200'. He easily won the 350cc class, at a record speed for the race. Stanley Woods' new Velocette could not be got ready in time and he was a non-starter. Thus the race was robbed of what had promised to be its main point of

interest—another meeting of these great rivals. But Guthrie did not let the absence of Woods prevent him from going really fast. He set off by breaking the course record from a standing start, and followed this up by a second lap at 78.60mph. Three times more he improved on this figure, and finally completed two laps in 4min 25sec, which equals a speed of 80.38mph. His average speed for the whole race was 78.07mph. Second was 'Ginger' Wood, riding a four-valve Excelsior in his first big road rice for this firm; his average speed was 72.83mph. Tyrell Smith (249cc Excelsior) dominated the 250cc class in the same way as Guthrie had the bigger class, and set up a new lap record of 73.45mph. His two nearest rivals, EW Corfield and D Parkinson (1936 Lightweight GP winner), also mounted on Excelsiors, were both eliminated before half-distance, and the Irishman won by over 25min. It was only in the 500cc class that there was any real competition. The absence of FL Frith and R Harris (Nortons) left the race in a more open state, of which the local riders were not slow to take advantage. Last year's winner, TG Byrne (499cc Rudge), led by a few yards from TB Fortune, who was riding an extremely fast 1936 'Ulster' Rudge for 25 of the 34 laps. Then he had to retire with gear box trouble. The remaining runners gradually dwindled until Fortune had only to finish to win. This he did in good style, and so secured his second victory in the only three races in which he has ridden. He beat the 500cc lap record, established by GH Rowley on the fourcylinder AJS last year, by one second on four successive laps at 74.74mph. Only Guthrie and Wood lapped faster than this. There were 28 starters, half of them being in the 350cc class. Five of the finishers were in this class, three (out of six starters) in the 250cc class, and, as mentioned above, only one finisher (out of eight starters) in the 500cc class."



"Guthrie's cornering with the spring-frame Norton was superb. Here he is seen at Tallaght Corner."

"SEVENTEEN TEAMS COMPETED for the annual South-Eastern Centre inter-club team trial, which was held last Sunday. Each team consisted of six riders, and the performances of the best four in each team counted for honours. An excellent course had been selected thanks to the North Kent Trials Combine. In most respects it resembled that employed for the Langmaid Trial at the beginning of the season. It was, however, fairly dry and, consequently, comparatively easy. All the same, no rider finished the course without loss of marks. The best man was Gordon Wolsey (497cc Ariel) of the Sunbeam Club, who was just back from the 'Scottish', with a loss of only two marks. Among the sidecars (their inclusion was optional) Harold Taylor (497cc Ariel sc), of the Streatham Club, was the best performer, with a loss of seven marks. Results. 1: Sunbeam Club—B Davis (346cc AJS), RSL Harding (497cc Triumph), NJ Wolsey (497cc Ariel), GA Wolsey (497cc Ariel), GS Hadfield (570cc Enfield sc); marks lost, 17. 2: Carshalton Club—M Riley (499cc BSA), JJ St John (348cc BSA), GE Eighteen (346cc AJS); EJ English (499cc Royal Enfield sc); marks lost, 22. 3: Witley Club—HC Wake (348cc Sunbeam), RT Viney (348cc BSA), GG Wilmot (346cc AJS), FE Quick (497cc Ariel), AJ Whistler (246cc AJS), AF Gaymer (343cc Triumph); marks lost, 28.

"PREMIER HONOURS IN THE North of Ireland Club's North-West '200' road race last Saturday were gained by J Guthrie (Norton), who thus has the distinction, with GE Nott (Rudge), of having won the senior event four years in succession. Guthrie also made a new record for the race at 82.17mph, but his fastest lap in 7min 54sec was a second slower than his own record. Stanley Woods (Velocette) provided a stiff opposition, which ended only when he had a spill on the eighth lap. Woods led Guthrie up to this stage, the difference between them varying from a second to four seconds. Thereafter the Scotsman's nearest rival was FL Frith (Norton). In the 350cc class JH White (Norton) had a good win over 'Ginger' Wood (Excelsior) and improved on the lap record by two seconds. SV Smith (Excelsior) won the 250cc class by a matter of seconds from G McAdam (New Imperial). The lap record in this event was put op by CH Manders (Excelsior), who improved on his last year's time by a matter of 10 seconds. The race was really a Coronation event, for all the starters received a souvenir, and in keeping with the occasion brilliant sunshine was the order. Fifty competitors took part—a record. Thirteen of the riders were in the 500cc class, 26 in the 350cc, and 11 in the 250cc. In the senior event there were only four finishers and in the lightweight two. This was certainly a very low percentage and was probably due to the fact that there were many newcomers from England and Scotland. In the junior event, however, 15 riders crossed the finishing line."





"C Gauterin (Norton) passes a word of consolation to W Dawson and another rider who were in trouble between Portrush and Portstewart." (Right) "Flagging in JH White (Norton), winner of the 350cc class."

"WHILE GOVERNMENTS CAN legislate and local authorities can administer; while speed limits, beacons, traffic lights, guard rails and other devices can help to make the use of the roads more orderly, the prevention of accidents can only be secured by the circumspection of every individual."—The Minister of Transport."

"DUAL CARRIAGEWAYS ARE to be provided along the section of the North Circular Road (Middlesex) between Neasden Lane and Brentfield Road, Willesden. The estimated cost is £30,000."

"AN MOT CENSUS of traffic on Class II roads shows that passenger vehicles have increased by 56% between 1929 and 1936, goods vehicles by 72.6% and pedal cycles by 89.4%."

"I SHOULD LIKE to congratulate 'DB' in hitting the nail on the head. There must be dozens of cyclists longing for a motor cycle. To quote my own case, I have travelled 30,000 in the last six years on a push-cycle and have thoroughly enjoyed it. Then I bought a second-hand motor cycle to feel my footing. Did I enjoy it? No sport ever surpassed it. Alas! trouble came—no job, bike not completely paid for, and my good deed and I had to part after only two months of friendship. I have been forced back to my push-cycle. I now sweat daily on my 20-mile run and curse and swear at the head winds and hills. But when I hear the ever-increasing purr of a motor bike coming along I smile. And as thee gentle rush of air subsides I murmur, 'Lucky blighter—good luck and happy steering!' To those who have not started push-cycling all I can say is, don't. Plank down the money you would pay for a cycle as the first payment on a motor cycle. Wishing all motorists the very best.

## John S Jones, Penarth."

"I AM IN THE same position as your correspondent 'DB'. I have experienced all he states in his letter. My mileage is about 15 to 20 a day—quite enough when you have to work on top of it. I have ridden a bicycle for about 12 years and also done several long journeys on the pillion of a motor cycle, and I can safely say that the motor bike is the safer of the two. Wishing your paper every success.

## T Hallisey, Plymouth."

"THE CLASSIC 500cc HOUR RECORD has been broken by over 7mph. On April 29th Pietro Taruffi, the famous Italian rider, took out the specially streamlined 500cc four-cylinder Gilera on the Brescia-Bergamo road in Italy and succeeded in covering 121.234 miles in the hour. The record was previously held by J Guthrie (Norton), who covered 114.0 miles in the hour at Montlhéry in October, 1935. The record-breaking Gilera has a very complete system of enclosure. It has rear springing and a water-cooled four-cylinder overhead-valve engine. In all, Taruffi broke 15 records in classes C (500cc), D (750cc) and E (1,000cc): 50km, 15min 35.2sec, 119.596mph; 50ml, 24min 18.2sec, 123.440mph; 100km, 30min 53sec, 120.719mph; 100ml, 49min 8.4sec, 122.100mph; 1hr, 121.234mph."



"The record-

breaking Gilera Is exceptionally well streamlined; machine and rider are completely enclosed."

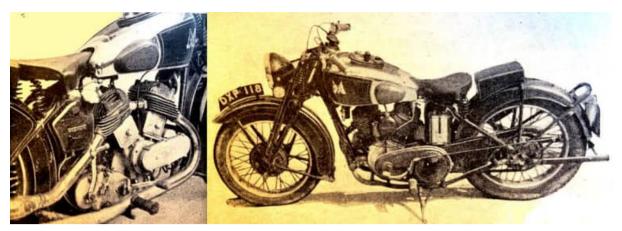


The Gilera Rondine transverse four, in racing trim—it won the Italian Grand Prix at Monza.

"COMES THE NEWS that Taruffi has snatched the hour record from Guthrie, covering over 121 miles in 60 minutes as against Jimmy's 114.097 at Montlhéry in October, 1935. The feat was accomplished on an auto-strada, not on a race track, and at the moment I don't know precisely how the road was used, as my map (not up to date) shows only a bare 50km of straight on the section described in the telegrams as the venue. Perhaps the strada has been extended since my map was printed, or maybe Taruffi used a triangle. Anyhow, the main interest lies in the bus rather than the scene, for the machine is a streamlined, water-cooled. rear-sprung, supercharged four-cylinder! There's underlining of what *The Motor Cycle* has been saying for some years past, amid jibes from our own racing men. We shall discover before we are much older that the attempt to hold our own with unblown, rigid-framed single-cylinders against Continental enterprise resembles pitting a Sopwith Camel against a Supermarine Spitfire or something equally fast."—Ixion

"OVER 9,200 MILES without stopping the engine! That is the feat which has just been accomplished in Australia with a 1937 Model 6/S 600cc side-valve Triumph and sidecar. For 13 days and 13 nights the outfit ran like clockwork, keeping up an average speed of 29.6mph, including all stops for refuelling and change of personnel. Throughout the test the outfit was under the scrutiny of the Australian ACU. After 9,261 miles had been covered misfiring set in owing to the plug gap widening and the engine stopped for the first time since the outfit had set out on its long run. Not since 1927, when a 577cc side-valve Ariel outfit completed a 5,000-mile non-engine-stop run, has a sidecar machine undertaken anything like such an ambitious test."

"IN THE PAST big-twin machines have been regarded by many riders as suitable only for sidecar work, and, in fact, they have usually been designed with that purpose in view. The Matchless Company, however, has produced for 1937 a 990cc machine that has been designed primarily for solo riding—indeed, it has a wheelbase that is shorter, than that of many 500cc machines. As a result of the short wheelbase the machine is extremely compact, and with the new large petrol tank and neat exhaust system it is undoubtedly a very good looker. And, apart from appearance, the Model 37/X Matchless is on a par with many modern 500s as regards road-holding and steering. As soon as the machine is on the move the rider forgets that he is astride a heavyweight machine. The Matchless could be ridden feet-up at speeds well below the register of the speedometer without any juggling with the handlebars. At slightly higher speeds the steering was comfortably light, but even when the machine was being cruised at over 60mph it did not become so light as to necessitate use of the damper. At all times the machine held the road well Throughout the test the fork dampers were done up slightly; without any tension tension on the dampers the forks tended to clash on rough going. The excellent road-holding of the Matchless probably accounted to some extent for the effortless way in which it could be cornered. The big machine could be laid well over on fast corners without any sign of snaking or wandering. On wet roads the Matchless was perfectly stable. Wet tramlines caused the rider no tremors, and on none of the slippery surfaces encountered was a skid experienced. On particularly greasy surfaces the steering tended to become rather light, but this was more a feeling than a fact, for the model never showed any tendency to get out of control. As regards the brakes, the front one was extremely powerful and could be used at full pressure on dry roads without locking the wheel, while the rear one was well up to its work and was as smooth as a rear brake should be. Criticism could be levelled at the position of the rear brake pedal, which is such that the rider has to remove his foot from the rest to apply the brake. With both brakes used together the machine could be brought to rest from 30mph in 28ft—a figure that is truly remarkable. Except that the petrol tank is rather wide, the riding position is nearly ideal for fast and comfortable cruising. Certainly for a tall rider the saddle, footrests and handlebars are very well placed, and even a long-legged rider can grip the knee-grips. The handlebars are rather higher than usual, but the riding position as a whole is one that inspires confidence and invites the rider to corner neatly and with absolute safety. All the controls are well placed. The long brake and clutch levers come easily to hand, and the ignition lever could be used without the rider removing the hand from the bar. The four-speed gear box was reasonably silent in the intermediate gears, and the clutch showed no sign of drag.



"In spite of the short wheelbase all the components are mounted neatly in the frame without crowding." (Right) "The prop-stand in action. The standard equipment includes an air cleaner, voltage control unit and a four-gallon petrol tank."

Actually, the clutch tended to stop too quickly if the lever was withdrawn fully. All that was necessary to make perfect changes up or down was to ease the clutch slightly while moving the gear lever. So mush for the cycle parts of the machine. The engine proved just as intriguing. A couple of hearty kicks would always start the engine from cold, and when the engine was warm a lazy dig on the kick-starter, using the exhaust lifter, was sufficient. As is often the case with a V-twin engine, the idling was not perfect, but the engine would run smoothly at low speeds with the ignition retarded. And with the throttle stop adjusted correctly the engine never stalled or stopped involuntarily. Until the engine was warm use had to be made of the air lever, and it was found advisable to run with the air slide only half open for the first few miles. When the engine was warns its performance was delightful. It would pull the machine along in top gear (4.3 to 1) on full advance at less than 20mph, and from this speed could be accelerated hard without a trace of snatch. With the ignition retarded the model would run smoothly at 10mph. At speeds of 30mph and over it was unnecessary to use the gear box, for the acceleration was far better than that of nearly all other types of vehicle. If the gear box was used the acceleration was little short of colossal, and from a standing start a speed of 70mph was reached in a quarter of a mile. Accelerating from 15-30mph in top gear took only five seconds, and from 20-50mph, 93/sec. Between the same speeds in third gear (5.4 to 1) the times taken were 4sec and 8sec respectively. With the rider 'lying down' the maximum mean timed speed was 80.3mph. At this speed the speedometer was reading very slightly slow. Maximum speeds attained in second (6.7 to 1) and third gears were respectively 51mph and 67mph Petrol consumption at a maintained 40mph worked out at 45.6mpg. The engine proved exceptionally quiet both mechanically and as regards the exhaust. On one occasion during the test the rear piston of the almost new and somewhat tight engine dried up. Th, piston was eased and no further drying-up was experienced. Throughout the test the power unit remained absolutely free from external oil leaks. This, combined with the excellent protection afforded by the heavilyvalanced mudguards, kept the machine free from excess road dirt and made it easy to

clean down after a wet run. Finally, mention must be made of the very efficient propstand. It can be operated by one foot and flies up again immediately the machine is brought back to the vertical; moreover, it can be used either up or down the road camber. The stand can be said to be typical of the machine as a whole, for the Model 37/X comes in that aristocratic class of motor cycles that are 'riders' mounts'."



"It is only the twin-cylinder engine that makes the Matchless look a big machine, for in other dimensions it compares favourably with the average 500cc model." This beauty is one of about 90 survivors (according the the Matchless OC, and they should know); it sold in 2017 for more than £50,000.

"PROMENADE SPEED TRIALS in the North! It sounds like a dream of 10 or 12 years ago. But this is the kind of event the Hartlepools MC organised last Saturday under a joint permit that embraced the North-Eastern and the Yorkshire Centres. The scene was some 660 yards of the Hartlepool promenade, and the excuse (to all except motor cyclists, of course) was that it opened the celebrations of the Coronation week. The course was about 10 yards wide, just enough for racing in pairs, and a white centre line had been put down. There was no gradient, but the entire length formed a very elongated S."



"D Parkinson (248cc Excelsior), leading, and G Bensley (348cc Norton) in one of the 350cc trials."

"IN THE RUN-UP to the TT, the Blue 'Un's northern correspondent Wharfedale pondered the way the world's most famous road race had evolved. "... Development was a matter of practical experience on the course, and riders had also to be tuners and mechanics if they wanted to finish, for they might have any sort of job to do before they got round. Punctures, leaking tanks, valve adjustments, slipped timing, ignition trouble, dozens of things had to be contended with in the old days. There were names in the TT then that have been forgotten, other names that are still with us, some of them very large indeed, although they have been with-drawn from racing as a matter of business policy. What associations they call to mind! Dot, Sheffield-Henderson, Diamond, New Scale, Massey-Arran, Matador, Wooler, New Hudson, Levis, Toreador, Cotton, Indian, Douglas, Triumph, BSA, Scott, James. Coulson-B, Hobart, Ivy, Powell, Duzmo, ABC and several others. Great days indeed! Perhaps the name of BSA in the above list comes as a surprise to newcomers in our ranks, for the famous Birmingham firm has not been associated with the TT in the minds of most present-day motor cyclists. Yet in 1921 there was a big entry of BSA machines in the Senior Race, and very fine models they looked, for they were among the first machines to be designed specially for the event. They had inclined ohv engines with vertical valve, and were quite fast. But at that period there was not the metallurgical knowledge available, although it developed rapidly soon afterwards, and trouble was experienced in finding valve springs that would stand up to

the job. Legend has it that every conceivable type of spring that could be picked up in Douglas was tried—chair springs, fork springs, saddle springs, and, of course, valve springs—and that eventually the clutch springs of a Model T Ford (the old 'Tin Lizzie') alone served the purpose. These BSAs, I am told, were detuned subsequently to a 60mph maximum (which was 'going' in those days) and sold off to enthusiasts, who found them unfailingly reliable. Of course, at that period when riders had to be mechanics there were often strained feelings between the designers and those who had to make the design go. I remember rolling round to one depot on one of those very hot, short-tempered sort of mornings and finding the 'workshop' doors closed but decorated with innumerable chalk scrawls warning 'all slide-rule experts to keep out'."



L-R" Betting crept in...and out—the late 'Long Tom' (the Brooklands bookie) opened a book in the paddock during the 1921 practising, but was not allowed to continue. Riders did their own tuning; here is Freddie Dixon (Indian). Mending punctures and changing tubes during the race was part of the game. Adjustments on the road."



L-R: "Do you remember Stanley Woods' first appearance on a Cotton in 1922? In the early '20s no one was ashamed to put out a foot at Ramsey Hairpin. In those days the Norton 'stable' was just a shed."



**BSA** 

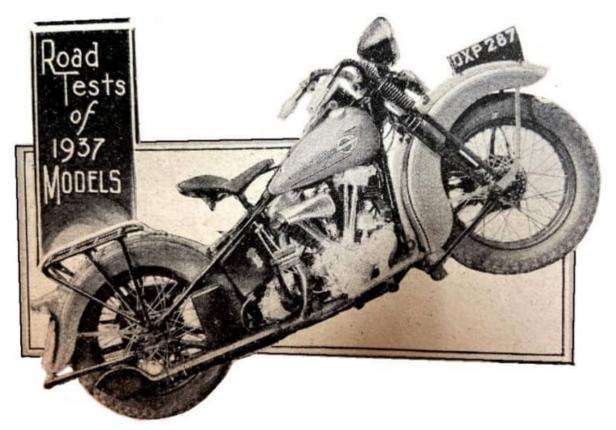
poured money into purpose built racers for the 1921 Senior. Six started, none finished.

"A FEW WEEKS AGO I mentioned that several clubs, among them the Matchless MCC, were trying hard to make their club evenings more interesting by persuading well-known people to give talks on various subjects. One day last week I dropped in at the Rising Sun, Ebury Bridge Road, London, SW1, to listen to Captain SME Fairman, Divisional Accidents Officer of the Ministry of Transport, address members of the Matchless MCC on the subject of road casualties, their cause and their prevention. Captain Fairman was introduced by Mr SA Davis, of the BMCA, as a pukka motor cyclist whose duties are to make roads safe everywhere. Captain Fairman told us that although he was entitled to be driven by a chauffeur in a saloon car, he firmly believed that the best way to learn about road conditions was to ride a motor cycle—he covers nearly 800 miles a week on two wheels in the course of his work. If a bend is reported as dangerous he gets the police to hold up the traffic while he takes the bend at various speeds to see for himself. He went on to explain the way in which the Ministry is working overtime to investigate and improve conditions, and emphasised its sympathetic attitude towards motor cyclists. After his talk Captain Fairman came under a barrage of questions, which he went to great trouble to answer fully. It was nearly midnight before an enjoyable evening was brought to a close."—Nitor

"ALL THINGS CONSIDERED, the new driving licence regulations which come into force on June 1st are to be welcomed as representing a further contribution towards safety on the roads. Under the regulations (the Motor Vehicles Driving Licence Regulations, 1937)

motor vehicles are divided into various type-groups, and a successful candidate in a driving test will only be allowed to drive other vehicles in the same group.

Fundamentally this regulation is thoroughly sound, for it is unreasonable to suppose that a man who passes a driving test on, say, a motorised cycle will be able to handle a car with equal facility. Where, in our opinion, the regulation fails is in the fact that it divides three-wheelers into two classes—those with reversing gear are classed as cars and those without reversing gear are motor cycles! It is, perhaps, a debatable point whether a three-wheeler should be classed as a car or motor cycle, but the fact remains that it has always been included in the latter class (and still is an far as taxation is concerned), and there seems no real reason for a change. In any case, the issue should not be decided by what after all is a minor constructional detail. As regards that part of the regulations that forbids the carrying of a pillion passenger by the 'L' rider of a solo machine, we are in full agreement. On many occasions The Motor Cycle has pointed out the dangers of inexperienced riders carrying pillion passengers, and the news that the practice is to be banned will, we suggest, be welcomed by all 'good' motor cyclists."

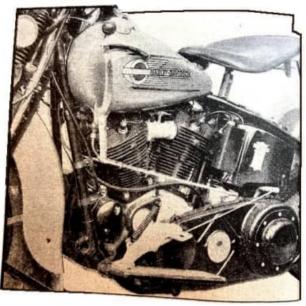


"The 988cc ohv Harley-Davidson looks what it is—an exceedingly comfortable machine to ride."

"FOR MANY YEARS the Harley-Davidson Motor Company has been renowned for its big side-valve twins. But early last year a 988cc ohv model was introduced. Known as the Model 61, it has a heavily finned V-twin engine mounted in a frame that is typically American. Throughout the machine is massively constructed and imparts an impression of immense strength and serviceability. The riding position is very different

from accepted English practice, as in fact are many of the controls, but after the briefest acquaintanceship one very soon feels at home with (or rather in) this machine. The comfort of the saddle has to be experienced to be believed. Adjustment is provided for the long coil spring in the seat pillar tube, and by this means a vertical movement of more than 8in can be obtained. Although the saddle is of the pan type, upholstery and width combine to provide the luxury of an arm-chair. Incidentally, the saddle can be readily unclipped from the pillar and pivoted about its peak for inspection of the oil tank. Of the folding type, the footboards are set at just the right angle for the rider's feet, while the handlebars, although wide, provide an extremely restful position for the arms. The only lever on the handlebars is that for the front brake. A clutch pedal is mounted at the forward end of the left footboard. It has a heel-and-toe action, and although damped has a strong spring action—either in or out—and can be used as a second neutral. When starting off, care has to be taken because of the tendency of the clutch to take up the drive on its own, but after very little practice it can be eased back momentarily by gentle pressure with the heel. Owing to the position of the clutch, turning round in the road to the left is a little tricky. It is also difficult to keep the foot on the clutch pedal when on full left lock on account of the left handlebar fouling the rider's leg. On the other hand, the foot clutch and left-hand gear lever provide a combination that is second only to a foot gear change for quick gear selection. The Linkert carburettor is fitted with a choke which has a variety of settings for use in temperatures varying from 30° below zero to tropical heat. Normally it was unnecessary to use the choke. The engine would always start on the first or second kick, although it was inclined to spit back until warmed up. There are two adjustments which can be set while riding—one controls the main jet and the other the slow running. Such was the power of the engine that care had to be taken when accelerating in either bottom or second gear. The response to the throttle was so immediate that at times the rider was jerked backwards and involuntarily opened the throttle still wider. At low speeds the transmission was a trifle harsh in the high gears, but at speeds over 20mph in top the power delivery was delightfully smooth and free from vibration. It is from 30mph upwards that the Harley-Davidson becomes a real joy. Its acceleration is, without exaggeration, colossal. From 15mph to 30mph the time taken in the various gears differs by such a little that one wonders why four speeds are fitted. In any ratio the terrific surge of power is breathtaking, particularly when accelerating from 20mph to 50mph, is remarkable up to 50mph, so it is above this speed, up to 80mph and more. There is an





"One of the Harley-Davidson's outstanding features is a comfortable saddle with a large range of movement. Note the extremely 'clean' handlebar." (Right) "A left-hand gear change with a foot-operated clutch seem strange to English eyes. The footboards fold upwards."

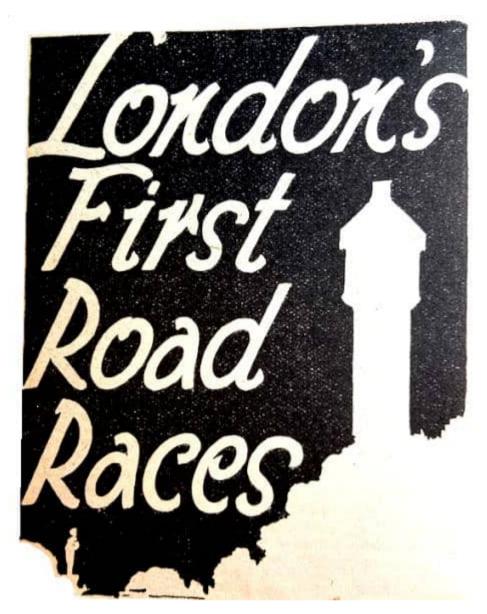
indescribable thrill about riding this large machine along a wide, straight and deserted main road. Sitting bolt upright in armchair comfort, one can almost immediately command any speed up to 85mph on the level. There is only one small criticism—the rider's feet are liable to slide off backwards if they are not kept firmly on the footboards. A speed of 76mph can be attained in a quarter of a mile from a standing start. The timed mean speed over a ¼ mile, taken in both directions, amounted to 86.5mph, with a best one-way speed of 88mph. In third gear the Harley-Davidson is extraordinarily quick, although second gear is all that one needs to start and get right ahead of any traffic. In fact, one can start in first, second or third with very little difference in the time taken to reach 30mph. Although no steering damper or shock absorber is fitted, the steering of the Harley-Davidson is beyond reproach. In spite of its weight—5451b—its handling at all speeds over good or bad surfaces is superb. No doubt on account of the large movement of the saddle, bad potholes can scarcely be felt. The machine is, however, inclined to pitch slightly at 50mph, although at speeds below and above this figure the tendency is not apparent. Just as the steering and performance of the Harley-Davidson are amazing so is the cornering. The big machine can be swung round bends at extraordinary angles, while bumps can be ignored. The handling on wet roads inspires confidence, although great care has to be taken not to accelerate too hard. At high speeds the brakes leave little to be desired, although the rear brake was apt to lock the wheel on sudden application. At slower speeds the brakes were not quite up to the exceedingly high standard set by the rest of the machine. The finish of this machine is of a very high standard. On many occasions the machine was used in the rain, but not a

sign of rust appeared. The mudguarding is also very efficient, and keeps the machine surprisingly clean. When riding in the rain the front mudguard tends to direct a stream of water on to the rider's legs. But this is a small point when the 'ultra' performance of this fascinating machine is born in mind."



...and here's the Knucklehead that so impressed the Blue 'Un, as restored by the excellent Dale's Wheels Through Time Museum in North Carolina. That exquisite 'Delphine Blue' livery was part of Harley's one-year-only colours campaign to boost sales. This example is 100% original apart from the tank's gold and silver leaf Harley logo.

"THE INDIAN MOTORCYCLE Co of America, like the Harley-Davidson people, take pains to see that their riders are properly clad...The Indian people, in addition to pushing legshields and windscreens for the six winter months, market a garment unknown on this side, called a 'rain suit'. It resembles the famous Sidcot in general layout, is obtainable in white and khaki, and incorporates a monk's hood to cover the head on demand. But it lacks the heavy lining of the typical Sidcot (which was, of course, introduced for flying), and can be rolled up into a package about 12in long and 6in thick, and strapped to the handlebars when not required. It is described as being made of rubberised uncrackable fabric, and sells at about £2 10s of our money. Its advantage over the Sidcot is that it is much lighter and more portable. I believe there would be a definite market for it over here. Its success probably pivots on the technical chemistry by which the rubber is bonded into the fabric, a point which made the 'Continental' rubber glove of pre-war days, and defeated that glove's post-war British imitators. Our Sidcots are so bulky, weighty and warm that few of us carry them except in really bad weather. This lighter combination knit lends itself to permanent carriage on the person or the bus." It seems our colonial cousins invented the unlined on-piece oversuit which became ubiquitous in the 1970s. Kudos!—Ed.



"LAST SATURDAY AFTERNOON thousands of Londoners enjoyed the spectacle of the first motor cycle races ever held on a genuine road-race circuit within the Metropolis. The occasion was the Coronation Grand Prix meeting held under the auspices. of the Road Racing Club on the new two-mile circuit at the Crystal Palace. The outstanding feature of the races was the number of top-notch road race stars in the entry. There were three past winners of Isle of Man TT races, as well as a number of Manx Grand Prix stars. As was only to be expected, the racing was of an exceptionally high order. M Cann (348cc Norton) rode magnificently to win the Junior event at an average speed of 53.15mph—only 0.62mph slower than the winner of the recent car meeting on the same circuit, and his record lap at 55.13mph was actually 0.54mph better than the fastest car! The winner of the Senior Race was HL Daniell (490cc Norton) at 52.86mph. He had a grand tussle with JM West (497cc Ariel) and the redoubtable Stanley Woods (495cc Velocette). Before the Junior Grand Prix was started, Eric Fernihough, fresh from his record-breaking runs in Hungary, rode his famous streamlined Brough Superior—the

fastest two-wheeler in the world—round the circuit, to the delight of the huge crowd. [The meeting also featured] an invitation race for sidecars, for which there were six entrants. It could not be described as an exciting race—although J Surtees' 596cc Norton outfit provided some hectic moments. At the Stadium Curve, opposite the grandstand, the outfit hit a bank of earth and in the space of a few seconds tipped both driver and passenger out, continued driverless across the track on to a grass verge and fetched up against a fire-float—but not before it had torn off the door of the Secretary of the Meeting's car! Soon after the start of the race AH Horton (596cc Norton sc) was in the lead, closely followed by W Graham' (495cc AJS sc), B Ducker (490cc Norton sc) and F. EG Ratcliff (490cc Norton sc). On the third lap Graham dropped out and Ducker and Ratcliff moved up into second and third places, this order being maintained to the finish."





"NB Pope (Norton), HH Tyrell Smith (Excelsior), and M Cann(Norton) in the Junior event. The South Tower forms a spectacular background." (Right) "A glimpse of the sidecar race at the Stadium Dip."

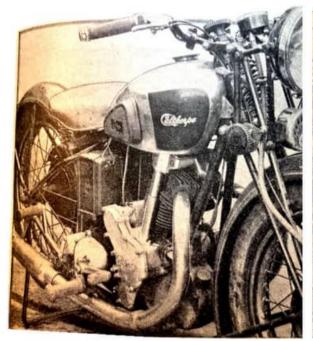
"RATHER THAN BE DICTATED to by the Auto Cycle Union, the Motor Cycling Club has decided not to hold the Inter-Club Team Trial this year. The bone of contention lies in the fact that ever since its inception in 1904 the trial has been open to all clubs. Now the ACU wishes to restrict the event to clubs which are affiliated to the ACU. In other words the trial, it is suggested, should be a championship of ACU clubs, not the championship of the clubs. Rightly or wrongly we have felt for years that a certain section of the Union is jealous of the MCC—it appears to consider that the trial ought not to be run by the MCC at all, but by the ACU as governing body of the sport. This is by no means the first time that difficulties have arisen. There is still in existence a telegram the ACC (now the ACU) sent on the eve of the very first trial threatening to suspend everyone who competed! For years the ACU has been granting permits on the basis of the event being open to all clubs. Recently there has been this change of front. Conferences have been held between delegates; an agreement was even reached, but the ACU Competitions

Committee set aside the agreement and decided that no permit was to be issued unless the event was restricted to ACU-affiliated clubs. This we look upon as thoroughly shortsighted. The ACU's duty is to encourage club life. Many a club has owed its inception largely to the Team Trial; a group of motor cyclists has been encouraged to join together and enter as a team, and later has come into the ACU fold. If there is one event in the calendar in which the ACU should work hand in glove with the MCC it is the Inter-Club Team Trial, which by fostering inter-club rivalry can be an immense asset in club life. We urge that the question of issuing a permit be reconsidered."



"ALTHOUGH the latest 349cc Calthorpe is known as a de luxe model, it should not be regarded as suitable only for touring. On the contrary, it possesses qualities which make it a satisfactory mount for fast road work and for other sporting purposes. This 350 has full electric lighting, with magneto ignition (coil ignition is available at a slightly lower cost). It is a neat machine, and appears to be of larger capacity than is actually the case—until the rider sits in the saddle. Then the illusion is reversed, and the machine seems much smaller—both as regards its riding position and its handling. For a rider of medium build the saddle is set a trifle too far forward. At the same time, the riding position is comfortable and the controls are very accessible. The handlebars are of the 'clean' type, with the controls set at a natural angle. Incidentally, the bars are commendably narrow. Starting called for a little more effort than usual, a fact no doubt due to the newness of the machine and possibly also to the gear ratio between the engine and kick-starter. When the engine was warm it was sometimes necessary to flood the horizontal-jet type carburettor in order to restart. Idling was excellent and particularly smooth. Indeed, smoothness was a characteristic of the engine throughout its range, and neither at high nor low speeds was vibration particularly noticeable. The

gear change is both light and positive, and the same applies to the clutch. The gear pedal is conveniently situated in relation to the rider's foot, and practically no effort is required to select a gear. The gear box was reasonably quiet, although a slight whine could be heard in the intermediate gears. This was probably more noticeable on account of the exceptional quietness of the engine, both mechanically and as regards the exhaust. At the upper end of the engine's range the exhaust note is still subdued, even though it does acquire a certain 'tanginess'. On the open road the Calthorpe handles like a 250. Its steering has a marked self-centring effect which makes it quite unnecessary to employ the steering damper. When the machine is taken into a corner it seems automatically to adjust itself to the correct angle and to hold itself there regardless of the road surface.



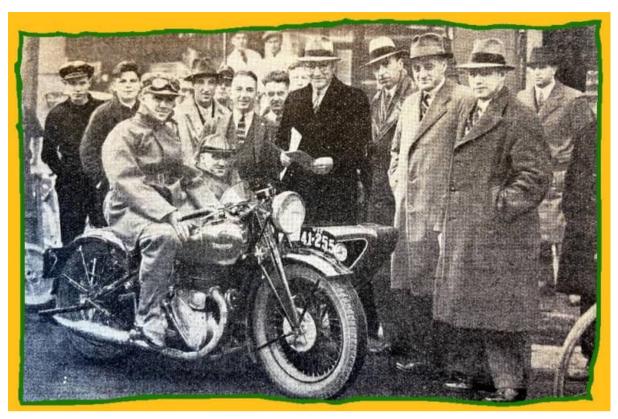


"Full enclosure of the valve gear is a feature of the latest Calthorpe." (Right) "An unusual refinement is a protector plate over the air inlet of the downdraught horizontal-jet type carburettor."

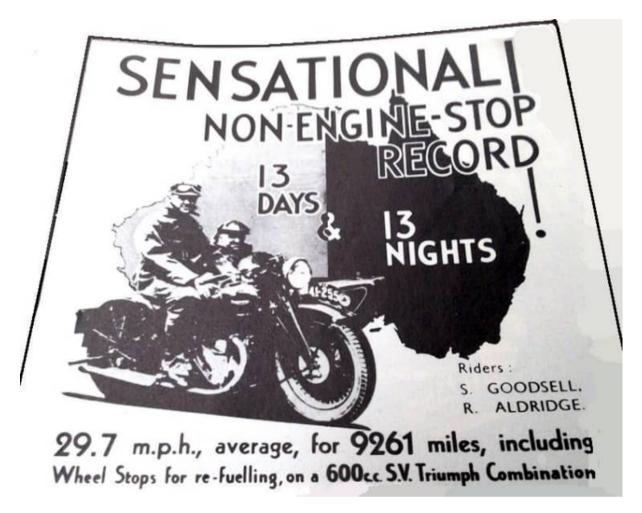
Thanks to the positive nature of the steering, the machine, imparts a feeling of great confidence on greasy surfaces. The road-holding, even over rough surfaces, is particularly good. At high cruising speeds the handling is excellent and requires no effort. The Calthorpe will cruise comfortably at any speed between 50 and 60mph—incidentally, the speedometer was giving readings at these speeds which were slightly on the low side. Timed in both directions over a quarter bf a mile, the mean speed of four runs amounted to 65.2mph, with a best one-way run of 67.1mph. The figures were obtained with the rider crouching down as far as possible, for no mudguard pad is fitted. The best speeds attained in third and second gears were 52mph and 40mph respectively, and 26mph was the best figure reached in bottom gear. Main-road

gradients could be tackled for the most part in top gear, so long as the engine revolutions were maintained. On the other hand, quite steep hills could be climbed in third gear at speeds of well over 40mph. Hills of a trials nature could be surmounted with plenty of power in hand—a point which, coupled with the excellent steering, suggests that if the machine were fitted with competition tyres, it would prove admirable for trials work. There is no doubt that had the mixture been a trifle richer at low engine speeds the acceleration would have been extremely good. As it was, a definite flat spot was noticeable when opening up, which caused the engine to 'cough' momentarily. Above this period the acceleration was all that could be desired of a 350. In top gear the best response to the throttle was obtained between 35mph and 55mph. On the other hand, the acceleration from a standing start through the gears was almost as good as many 500s. A speed of 56mph was reached in a quarter of a mile from a standing start. The brakes are well up to standard, although a little more efficiency on the part of the front brake would have improved the braking figure considerably. Both brakes are light and easy to operate, and pleasantly smooth in action. As regards economy, the oil consumption during the test was practically nil, while at a maintained 40mph the petrol consumption amounted to close on 100mpg—actually it was 99.6mpg. And this figure was only slightly reduced when the machine was cruised at higher speeds. Throughout the test the engine of the Calthorpe remained remarkably free from oil leakages, both as regards the crankcase and around the totally enclosed overhead valve gear. Finally, the mudguards are of a design which ensures the machine and rider keeping clean, even after many miles of wet and greasy roads."

"OVER 9,200 MILES without stopping the engine! That is the feat which has just been accomplished in Australia with a 1937 Model 6/S 600cc side-valve Triumph and sidecar. For 13 days and 13 nights the outfit ran like clockwork, keeping up an average speed of 29.6mph, including all stops for refuelling and change of personnel. Throughout the test the outfit was under the scrutiny of the Australian ACU. After 9,261 miles had been covered misfiring set in owing to the plug gap widening and the engine stopped for the first time since the outfit had set out on its long run. Not since 1927, when a 577cc side-valve Ariel outfit completed a 5,000-mile non-engine-stop run, has a sidecar machine undertaken anything like such an ambitious test."

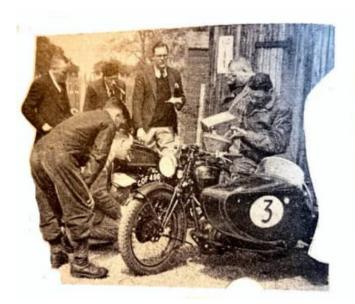


"In the saddle is Sid Goodsell, the driver, and in the sidecar, Arthur Millard, an Australian ACU observer."



"RIDERS PROVISIONALLY SELECTED by the ACU for the British teams in the International Six Days' Trial turned up in force at Donington last week for the preliminary tests. The final choice of the teams will depend largely on the results of these tests, and naturally every rider was out to do his, best...The day previous to the tests was spent by several of the riders in getting on good terms with their machines and with the Donington circuit, and in righting any minor mechanical defects which may have developed. Stuart Waycott, the sidecar man in the Trophy team as at present constituted, had a spot of bother due to a mechanic's error in assembly, and had to work all night obtaining and fitting a new cylinder. He had a 500cc Velocette with him, but he proposes to drive a 600cc machine in the trial—one similar to the new TT designs. The other members of this team, Vic Brittain and George Rowley, were on 350cc machines, a Norton and AJS respectively. Riders in the Vase 'A' team were Les Heath (499cc Ariel), A Jeffries and Jack Williams (348cc Norton), and the "B' team, all Rudge-mounted, were Bob MacGregor, Jack Leslie and JC Edward....Various adjustments were made on Wednesday morning, and those riders who had not been present on the Tuesday put in some useful practice. All were examined for physical fitness by Dr. Galloway. These preliminaries over, the real tests began. All riders were required to cover 18 laps of the outer circuit (about 46 miles) to give an indication of what might be expected of them in the final speed test of the Six Days. Following this,

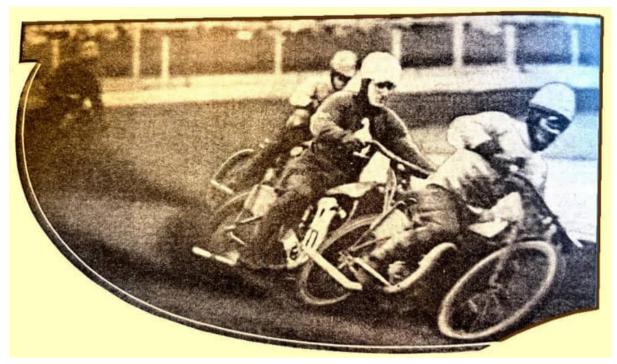
they were called upon to cover three laps at high speed, one of which was timed. Afterwards, there was a tyre-changing test, also timed, in which front wheels had to be removed, the tyre and tube detached, replaced, and the wheel put back in the forks. Allan Jeffries was outstanding in the 18-laps test. In characteristic fashion he made a real race of it, whereas most of the others preferred to take things comparatively easily...The three-lap high-speed test was reminiscent of a Bank Holiday at Donington. Although for obvious reasons times cannot be given, it can be said that most of the machines behaved very creditably. However, some were rather noisy, and one or two of them experienced trouble. The piston of Len Heath's Ariel seemed at one period to be inclined to 'pick-up', although no seizure occurred, and Bob MacGregor's Rudge met trouble when a tappet lock-nut came unscrewed. Graham Walker, who was present, is looking into the matter to ensure that it does not recur. In the tyre-changing tests, Brittain and Waycott were noted as good. Rowley, having an injured and bandaged hand, did not take part, but will undergo the test at a later date. From the instructions issued, it seemed likely that rear instead of front tyres would have to be changed, and Jefferies, who had no tools for his front wheel, changed the rear tyre instead. The ACU observers carefully noted these tests. The machines themselves showed no startling changes, and those devices that have been found useful on past occasions were again included. The Norton have box spanners with tommy-bars welded to the wheel spindle nuts. In addition, clutch and brake cables are duplicated, nail-catchers are fitted to the mudguards, and the machines are equipped with air bottles for rapid tyre inflation. These features are common to most of the other machines. Waycott has a single-leg rear stand for jacking-up the rear of the machine, steel protectors for the crankcase, and his air bottles are in carriers bolted to the sidecar body. The AJS machines are rakishlooking, free from useless frills and, of course, of the chain-driven ohc type. Len Heath's Ariel has a bronze cylinder head, and appeared to have a very useful turn of speed. The Rudges, too, are smart-looking jobs, and seemed comfortable to ride at high speeds. Thacker's and Jefferies' Triumphs sounded good all the time, and, as already stated, went extremely well.





"WS Waycott watches the ACU officials examining his machine, while his passenger fills the petrol tank. In the group are NPO Bradley (kneeling), ST Huggett, AJM Ivison, PS Chamberlain, GE Rowley and R Harveyson." (Right) "HJ Flook's passenger steadies the handlebar of Jack Williams' 348cc Norton while Jack carries out a minor adjustment to the front wheel."

"OVER 48,000 PEOPLE were at Wembley to see the first speedway Test of 1937 between England and Australia, and although England won by 66 points to 41 the match sparkled from beginning to end and provided splendid racing. The meeting was perfectly staged. England's captain, Frank Charles, gave everyone a fright when the siren sounded warning him that he had two minutes to get going for the opening race, but it was just a matter of changing a plug."



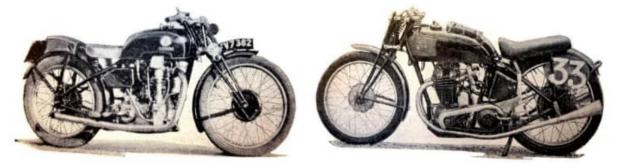
"A thrilling moment during the sensational seventh heat. Atkinson (England), here seen in the lead, was disqualified when, a moment later, his rear wheel and Van Praag's (Australia) front wheel touched one another."

"CONDITIONS that were almost ideal prevailed at the Open-to-Centre scramble organised by the Bayswater MCC last Sunday. The weather was warm and sunny and the rain of the previous evening had successfully laid the dust. As a. result the crowd of several thousands who attended the meeting saw an afternoon's keen racing. The course was the same three-mile circuit on Bagshot Heath that the organising club has used for several years past. It consists of sandy tracks—some smooth, some bumpy—and many hills, chief of which are the famous Red Road and Kilimanjaro. It is a course that is popular with scramble riders, and the Club had had to refuse some 15 entries after the entry list had closed with a total of 73."



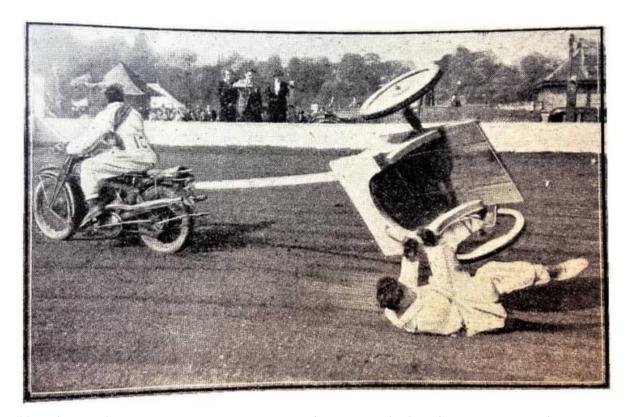
"Red Road, 1937 version. A section of the huge crowd watching WA West (497cc Ariel), the winner of the unlimited cc event, making one of the speed ascents of the hill."

"FINAL DECISIONS HAVE now been made as to the type of machine Excelsiors will take to the Island. Naturally, minor alterations may be made as dictated by performances during practice, but sufficient is now known to make it unlikely that any changes will take place. Models for both races entered—the Junior and Lightweight—will be of the four-valve type, and the cylinder dimensions are, respectively, 75x79mm (349cc) and 67×76.5mm (249cc). Aluminium-bronze cylinder heads are to be used, and the design allows the triple-coil valve springs to be totally enclosed, lubricated and air cooled. Cylinder barrels will be of a special hardened-alloy iron."



"The Excelsiors for both the Junior and Lightweight Races are of the four-valve type with aluminium-bronze cylinder heads and totally enclosed valve gear. Two carburettors are employed." (Right) "The Lightweight OK Supremes entered by Stuart's Motor Cycle

Depot, Blackpool, have light-alloy cylinders and a considerably modified lubrication system."



"Charioteers!: The passenger scrapes the cinders as his Chariot overturns luring a race at the Crystal Palace Whit-Monday rodeo."



"There would be

few pedestrian casualties if every walker could leap like this signalman performing at a display by the City of London Signals (TA)."

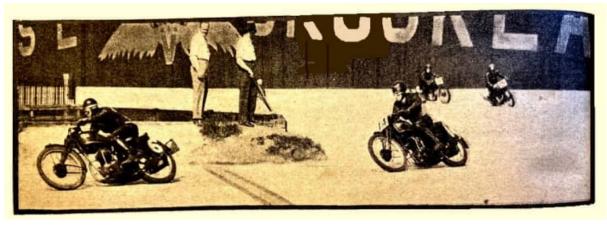
"SO THE PROPOSED RACE for mobiles at Brooklands is 'off'. The event was to have taken place over the new road circuit in July, but the authorities have intervened and refused permission for their men to compete. The news will come as a sad blow to the many enthusiasts in the mobile police force, and will certainly disappoint those Brooklands habitués who were looking forward to seeing the 'cops' perform. The reasons given for the refusal are (1) That members of the mobile police are too busy to spare the time for the race and practising, and (2) The proposed race was rather dangerous. The italics are mine! Somehow there is something amusing about the suggestion that men who are expected to chase criminals at high speeds through busy streets will come to harm in a properly organised track event."

"MOUNTAIN CHAMPIONSHIP DAY at Brooklands is usually a day of exciting racing, and last Saturday's Championship meeting proved well up to standard. There were close finishes in both handicap and scratch events, and five men found enough speed to win Gold Stars. The weather was gloriously fine, but there was just enough breeze to keep the spectators and officials reasonably cool—the riders just sweltered in their leathers as they waited on the line before the start of each event. But the heat failed to discourage them from discussing vehemently the new regulation regarding front number plates. Every competitor had to carry a large cardboard number on the front, and those folk with streamlining—and some of those without—were saying many hard words about the organisers who had introduced the idea. Proceedings began just after 2.30pm with a three-lap outer-circuit handicap race...Then came the two most important events of the day, the Senior and Junior Mountain Championships over 25 laps of the



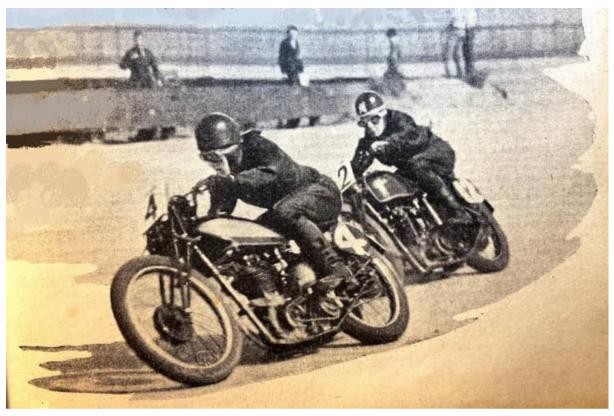
Brooklands Cameos L-R: "Overheard in the paddock: 'Yes, old man, I'm a thorough believer in streamlining.' MWK Tisdall (733cc BMW) returns to the track to make quite sure that he has won the first outer-circuit handicap. Pope (Norton): "I'm not sure that this outer-circuit business is quite safe. GW Webster (Vincent-HRD) enjoys a quiet afternoon clipping the Weybridge grass. Somebody's bribed that signalman again!"

Mountain course. First was the Junior, which had attracted an entry of 18. When the field was on the line, talk centred on the TT, everyone asking everyone else when they were going over to the Island, but when Ebby came down from the box and dropped his flag the field shot away like so many scalded cats. EG Mobbs (348cc Velocette), NB Pope (348cc Norton) and LJ Archer (348cc Velocette) were first away and, as it transpired, held the first three places throughout the race. On the first lap Archer had the lead, with Pope on his tail and Mobbs only a little way behind. Then came R Harris (348cc Norton), HC Lamacraft (348cc Velocette and LE Brooks (348cc Velocette). On this lap MV Horsfield (348cc Velocette) hit the outer sandbank at the Members' Corner, fell rather heavily, and retired. Soon the race settled down into a number of Norton-Velocette duels. The scrap for first place was terrific. For the first three laps Archer was in front, with Mobbs and Pope scrapping hard behind. Then Pope drew away from Mobbs, and on the eighth lap managed to catch and pass Archer. For lap after lap these two pairs circled the course, playing



"The field sweeps round the first bend of the 'Mountain' course of the Senior Mountain Championship."

cat and mouse with one another, and all were lapping in approximately one minute. Behind them WR Lunn (348cc Velocette), FW Fry (348cc Velocette) and G Newman (348cc Velocette) were keeping up steady speeds, while CD Allen (245cc Excelsior) and LA Dear (246cc New Imperial) were putting in creditable laps with their smaller machines. For 17 laps Pope led Archer by only a few yards. Then on the next lap Archer passed Pope at the back of the course and proceeded to pull out still more speed on the ensuing laps, eventually drawing well away from his rival. Similarly, Lamacraft overtook Harris and set out in chase of Mobbs. For several laps he was overhauling him steadily and it looked as though he might just be able to catch him. On the final lap Archer came round with 100 yards in hand over Pope. Then everyone craned forward to see Mobbs and Lamacraft; but Lamacraft misjudged the last bend in the race, the Fork, and slid to earth, leaning Mobbs unchallenged in third place. The Senior race was not a whit less exciting. Out of an entry of 22 there were four non-starters. H Rayfield (490cc Norton) earned the distinction of being last away from the line, and DAL Garzano (490cc Norton) couldn't get his motor going for a long time. NB Pope (490cc Norton) held the lead on the first lap, but as he passed the lap-scoring boards his motor was misfiring and JW Forbes (490cc Norton) overtook him; R Harris (490cc Norton) was third. On the next lap Harris also overtook Pope. Then Pope stopped at the back of the course to cure the misfiring, and although he lost two laps he got going again. Retirements had already begun, and ATO Liddell (499cc Vincent-HRD) and LE Tooth (499cc Rudge) both toured into the pits.



"A magnificent impression of the duel between NB Pope (348cc Norton) and LJ Archer (348cc Velocette) in the Junior Championship race."

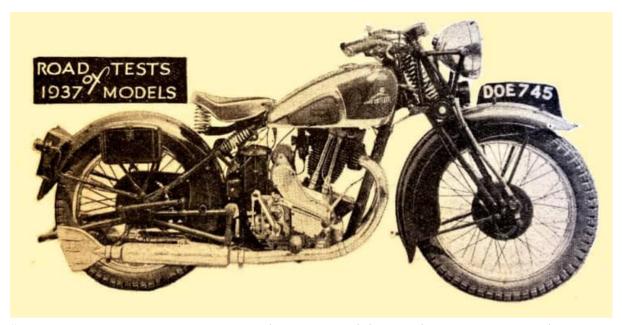
Then R. Harris (490cc Norton) had a bout of misfiring and later retired. Meanwhile Forbes was still going great guns in the lead, followed now by AJ Rawlence (490 cc Norton) and DC Minett (499cc Rudge). Pope, although two laps behind, was right on Forbes' tail and the two proceeded to have a colossal duel for the rest of the 25 laps. On the sixth lap H Rayfield (490cc Norton) ousted Minett from third place and on the following lap he became second when Rawlence went out with mechanical trouble. But Rayfield's success was short-lived, for on the following lap he also retired. This left Minett in second place behind Forbes, who by this time was nearly half a lap ahead and still duelling with Pope. On the 11th lap CM Brooks (490cc Norton), who had pulled up into third position, managed to overtake Minett, and CT Atkins (490cc Norton) overtook HC Lamacraft, who was riding a Junior Velocette to such good purpose that he was holding fifth place. From then to the finish Forbes held the lead and his efforts had resulted in his almost lapping the second man. Behind him the positions remained unchanged except that Pope had had to be content with fifth place."



"Settling down! A bunch of riders at the Fork on the first lap of the Junior Championship. LE Brooks (348cc Velocette) leads WR Lunn ((348cc Velocette) and MV Horsefield (348cc Velocette)."

"AS A CONFIRMED SCEPTIC I often wonder sadly if our No 8 hats really know anything about engines and motors generally, or if, as I imagine, they invent their theories to fit the prevailing practice. For instance, pistons must be a close fit in their cylinders or be inefficient (so we are told), yet the Cross engine works perfectly with a piston which does not, and must not, touch the cylinder. Fans would scream about upset stability if Norbeams raised their engines lin in the frame, yet will prove conclusively that a tenstone pillion passenger who raises the machine's centre of gravity 2ft is a definite advantage. Fast riders condemn the speedometer as inaccurate, and accept the rev counter as gospel, yet both instruments are similar internally. TT Tooner says that long exhaust pipes are necessary to obtain power by reason of the extractor action, yet the super-efficient Rolls-Royce Kestrel and Merlin aero engines have exhaust pipes about 6in long. Roller head bearings are essential for easy steering, so dampers are fitted to prevent their functioning. It is well known that detachable and fixed cylinder heads are definitely superior to each other. If I forsake the model temporarily and get out the car, I consult three different instruction books, Where I find that before starting, I must (a) warm up the engine slowly to ensure proper oil circulation; (b) warm the engine quickly to prevent condensation and corrosion of the bores; and (c) drive away without warming up. Again, it was conclusively proved in a car journal some months ago that it was impossible to stop a car going at 30mph to less than 30ft; this is particularly unfortunate for me as it means that I was killed in a road smash 12 weeks ago. Good old technical experts, long may they live to confound us and each other!

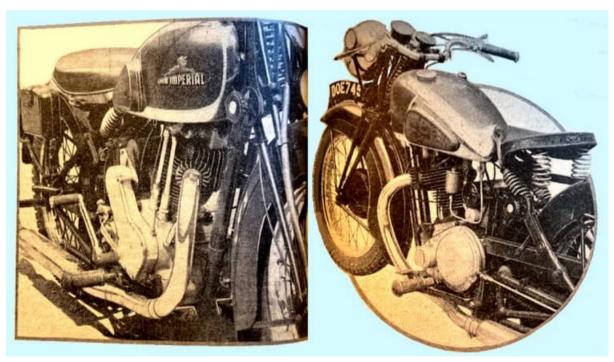
H Johnson, Ashford, Middlesex."



"Although the Model 46DL New Imperial has an efficient spring frame, the fact is not immediately apparent."

"TOWARDS THE END OF last year New Imperial Motors announced that all their new models, with one exception, would be available with rear springing for the comparatively low extra charge of £3. This spring frame is of a type developed and marketed by the manufacturers over a period of years, and it undoubtedly enables long journeys to be covered with the absolute minimum of fatigue. The Model 46DL, the New Imperial under review, is fitted with a spring frame and a 344cc engine with fullyenclosed overhead valve gear It is sold with electric lighting and an extensive de luxe equipment. Two interesting points concerning this machine are that the gear, box is built in unit with the engine and helical gears are employed for the primary drive. When the rider is astride the machine the impression is gained that the New Imperial is a sports 500 rather than a 350. This is due to the wide three-gallon petrol tank. The riding position is most comfortable and the relationship of the saddle to the handlebars provides a restful position for the arms. The footrests are well placed, but the rear brake pedal might be considered a trifle too near the footrest, coming as it does under the rider's instep. Starting was reasonably certain provided care was taken in setting the ignition lever. A fraction back from the fully-advanced position was found to be the most suitable, and with the air lever closed a first-kick start could be assured. The idling was smooth, if a trifle uncertain—the mixture appeared to be on the weak side and at times the engine would spit-back and stop. In view of this tendency the air lever was used more than is usually the case. Under load the engine pulls sweetly, and throughout its range is remarkably free from vibration. Both mechanically and as regards the exhaust the New Imperial is commendably quiet. There is, however, a slight period near the peak performance of the engine when the valve gear can be heard. The clutch is both light and smooth in operation, with no trace of drag—even when the machine has been left standing for several hours. Selection of the gears calls for considerable movement of

the foot, and a certain amount of effort is necessary to make a positive change, particularly when changing from top into third gear. On the other hand, excellent gear changes of the quick, racing type could be made with ease. In the indirect ratios the gears are perfectly silent. The New Imperial has a surprising turn of speed. Although known as a de luxe model, the machine tested would comfortably exceed 70mph. Actually, the mean speed of four runs taken in both directions over a quarter-mile was 71.4mph—an extremely creditable figure for a 350 with full electrical and de luxe equipment. The best figure attained in one direction was 72.5mph. The maximum speeds in third and second gears were 61mph and 53mph respectively. Concerning the latter figure, a certain amount of valve float set in at just over 45mph, so that the machine required some slight encouragement to exceed this speed. An impression was obtained that had the gear ratios been a trifle lower, particularly in the case of second gear, the acceleration would have been better. Even so, the New Imperial managed to attain a speed of 58mph in a quarter-of-a-mile from a standing start, which is exceptionally good, for a 350. The machine is at its best when accelerating between 20mph and 50mph. In top gear the best acceleration occurs between 35mph and 60mph.

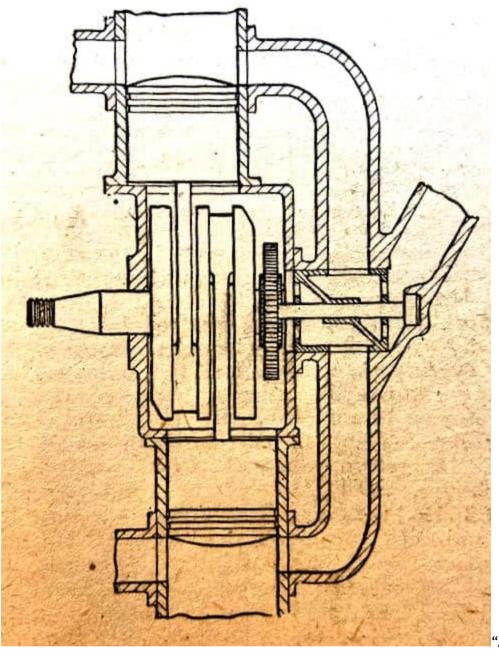


"A lead from the timing case supplies oil to the fully-enclosed valve gear through an adjustable needle valve." (Right) "It is quite a simple matter to reach from the saddle the adjustable friction damper which controls the movement of the spring frame."

Although the engine seems to revel in revs, it has a surprising reserve of power at low speeds. As with most spring-frame models the steering of the New Imperial has a marked self-centring action, and it inspires every confidence. On bends, fast or slow, it seems to adjust itself automatically to the amount at banking required. At high speeds

the steering was such that the steering-damper could be ignored. Care had to be taken when rounding fast comers on account of the fishtails grounding—a small point which can be overcome by slightly tilting the fishtails inwards. For town work the damper controlling the spring-frame can he slacked off without dismounting. The frame then works to its fullest extent and imparts a feeling of armchair comfort. For fast work it is advisable—although not essential—to tighten the damper, thereby improving the roadholding. Under these conditions it is difficult to realise that the spring-frame is in operation, except for the very important fact that the bumps and pot-holes in the road are ironed out. During the course of the test the engine of the New Imperial remained remarkably free from oil leaks. The oil consumption was practically nil, and at a maintained 40mph the petrol consumption amounted to 86.4mpg. At no time was it necessary to make any adjustments, which in a way was unfortunate, for it gave no opportunity to try out the really first-class tool kit. Finally, the brakes were well up to the high standard set by this de luxe machine. Both back and front brakes were light and smooth in application, and both were extremely powerful.

"AN ENGINE OF UNUSUAL interest—one designed with a view to combining the advantages of the two-stroke with those of the four-stroke—is the subject of a recent patent. Actually the engine operates on the four-stroke cycle, but there are no poppet valves, while the gas is compressed in the crankcase. In construction the engine has two cylinders set at 180°, mounted on a common crankcase. A transfer passage is also shared and, by means of a specially designed rotary valve, the compressed charge is fed to each cylinder in turn. A notable point is that while one cylinder is being fed with gas the other is drawing in air, so that it is thoroughly cooled and scavenged. The burnt gas is expelled through ports uncovered by the pistons in the usual two-stroke manner."

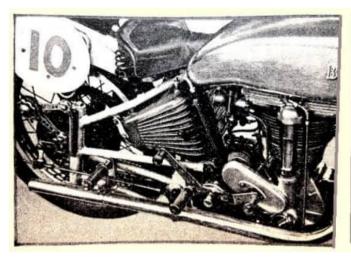


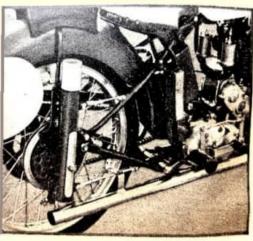
"A sectional

drawing of the Rogers engine."

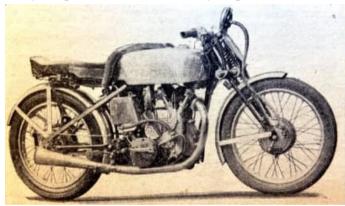
"BY FOCUSING ATTENTION upon rear-wheel springing, road-racing is conferring a boon on the motor cycle world. If, as it probable, spring frames become a standard feature a couple of years hence the thanks in the main will be due to the big races. British, German, Swiss, Czechoslovakian and Italian racing machines are all being equipped with rear-wheel suspension. In the majority of cases only the rear wheel is unsprung, the idea, of course, being to keep the unsprung weight low and thus ensure the best road-holding. This system has a big advantage from the point of view of the ordinary user because the pillion passenger automatically obtains the full benefit of the springing. Unquestionably this week's TT races will help enormously to drive home the value of rear-wheel springing. We are glad, because our experience with spring frames

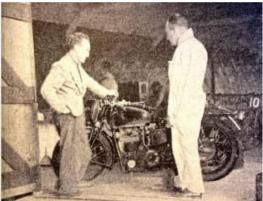
is that they constitute an important safety factor and add enormously to the pleasure of riding."





"All countries are appreciating the value of the spring frame for racing. Here are two examples from the Continent: (left) the Italian Bianchi and (right) the Swiss Motosacoche. It will be noted that in both cases only the rear wheel assembly is unsprung and that there are spring boxes, one on each side of the frame."





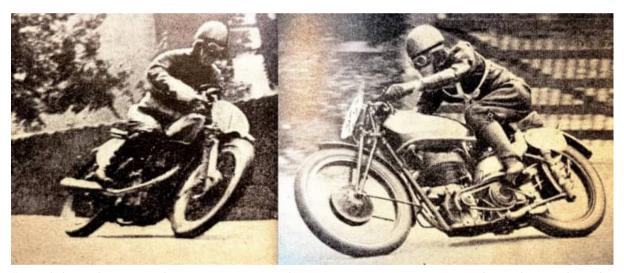
"A longer and larger tank and megaphone exhausts are two external modifications to this year's Senior Vincent-HRDs. Internally, several alterations have been made, including new cams and a lower compression ratio." (Right) "Stanley Woods, wearing his usual smile, has a chat with Harold Willis at the Velocette camp."



"J Guthrie (Norton) winner of the Junior TT at 84.43mph."

"THE JUNIOR TT WAS WON easily by J Guthrie (Norton), who, in spite of his 40 years, finished at an average speed of 84.43mph, more than 2½ minutes ahead of Frith (Norton), who in turn was nearly two minutes faster than the third man, JH White (Norton). The weather had cleared, and in spite of a gusty wind riding conditions were excellent throughout. The racing rather lacked spectacular interest as the Norton team demonstrated their superiority from the start, and when it was clear that Woods on the Velocette could not seriously threaten them, their team manager signalled them to slow down and sit on their lead. From the technical aspect the race was a magnificent exhibition of high-speed reliability, for the existing lap record was repeatedly broken by Guthrie, Frith and Woods, so that it now stands at no less than 85.18mph. Guthrie set up this new figure of 26min 35sec on his fifth lap, a feat equalled by Frith on his seventh lap. It is a fantastic speed for 350cc engines over so severe a course. The Nortons, incidentally, annexed both the Club and Manufacturers' team prizes. In spite of the high speed 25 of the 39 starters completed the course, and several of the 14 retirements were due to minor spills rather than to mechanical failure. No one was very seriously hurt, there being one case of slight concussion and another of a broken wrist. The riders in the van held their places sternly, the same four men, namely, the Norton team and Woods on the Velocette, ranging as the leading quartet throughout, and this with no change of order except that Woods momentarily deprived White of third place on two laps. Many newcomers to TT honours acquitted themselves well, and of the riders from abroad Galway (South Africa) finished ninth and Faltner (Austria) finished 23rd. Sunday was a day of great anxiety. Rain and fog had reduced visibility to a minimum for a whole fortnight. The officials talked glumly of wholesale postponements and were thankful

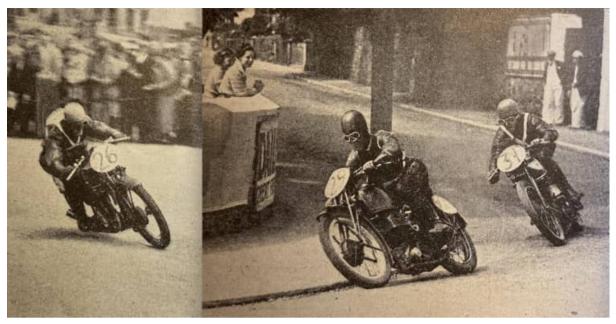
that their closing order gave them the roads for six days at discretion. Mercifully, on Sunday night the wind changed to north-west, the fog blanket was swept away in a trice, the roads dried, Snaefell thrust its arrogant silhouette skywards, the bay glittered with a myriad sequins, and gusty breezes tempered the glittering sun. The usual mob of enthusiasts trooped out on all kinds of transport to their favourite vantage points. Out came the heroes to warm up their engines under 10,000 critical eyes. The three Germans, Mellmann and Fleischmann (NSUs) and Vaasen (Norton) were the only absentees, so 39 men faced the starter. Illichmann, of course, took over Fassl's NSU. The popular tip was Stanley Woods (Velocette), although everybody realised that he would need all the luck as well as all his wits and dash to hold the flying Norton. Just before 11 o'clock the lowlands resembled in colour and clarity an Italian landscape, visibility was one mile on the mountain, above which towered an imitation ski-slope of white cloud 15,000 feet high. Woods, resplendent in a gorgeous tangerine helmet and ribbed body-belt, took up No 1 oblong on the gridiron. The maroon crashed, Ebby's arm fell, and the battle was on. Everyone got away to an excellent start—the days are gone when men lost minutes on the line. Guthrie started three minutes after Woods, so the Scottish and Irish champions rode in close company.



"A thrilling glimpse of Stanley Woods taking the Velocette through Union Mills during his vain but brilliant attempt to keep ahead of the flying Scotsman, Guthrie." (Right) Last in the field but second to finiosh—a characteristic impression of Freddie Frith (Norton)."

The riders from abroad—Faltner and Illichmann (Austria), Pepper (Canada), Galway (S Africa), Binder (Austria), Sorensen (Denmark) and Simo (Spain)—received special applause, as did Mellors, who had been vetted fit by the doctors after his practice toss. Meanwhile a stop-watch operated against the signal dials suggested that Guthrie was gobbling up the field like a hungry lion and apparently gaining on Woods. Now the whole field had departed, Frith being whipper-in—no bad position for receiving pit orders in a tight finish. The wind was freshening and would both help and hamper speed along alternate legs of the circuit. Woods still leads the roaring procession, his engine sounding really healthy, but somehow not giving the impression of terrific speed. As we

wait for Guthrie the gale rips away a stream of advertising banners. Here's Guthrie, obviously the faster of the two. Yes, Guthrie has lapped in 26min 58sec (83.9mph), while Woods' time is 28min 2sec (80.7mph). Guthrie is 40 seconds faster than record, though no first laps count for record. Woods' prophesied hat-trick is already endangered. The field follows in a long procession, the majority of the riders sitting up far too much for a day when windage counts so much. The champions, by contrast, are flat on their tanks. Frith, at the tail of the speeding queue, overhauls man after man. All the Norton trio appear to have headed Woods. Laps in under half an hour are as common as blackberries in September. Myers (Norton) retires at the pits with a broken footrest; Pope (Norton) skids at Ballacraine; Newman (Velocette) is delayed by plug trouble at Union Mills. The second lap proves even more hectic. First Woods breaks the lap record with a circuit in 27min 30sec (82.34mph). Then Guthrie immediately pulverises these figures with a lap in 26min 50sec (84.38mph). Meanwhile Archer (Velocette) has retired, but everybody is pleased to see that Galway (Norton) is keeping South Africa's banner flying high. And AR Foster and G Rowley are still riding their AJSs brilliantly. Paterson's (Velocette) failure to complete the first lap was due to a toss at the Gooseneck. All the fast men complete two laps and the leading quintet display no changes of position, but ER Thomas (Velocette) displaces Foster from sixth place and Guthrie further consolidates his mastery at the head of affairs. Pope takes a heavy skid at Governor's Bridge and continues with his machine slightly bent. Binder (Velocette) retires at the Craig with broken forks. Gradually the position clarifies. Nortons are miles an hour faster than anybody else, and Guthrie can still outride far younger men. Given the familiar Norton reliability, nobody has a chance with them. Woods comes in for fuel after completing his first century, and achieves a lightning pit stop in 23 sec, but Guthrie is so fast that he streaks in for fuel just as Stanley gets away. The flying Scot has smashed his own second lap record with 26min 45sec (84.65mph). Meanwhile there is great excitement—Illichmann is reported as having bought two gallons of petrol at Sulby, and the chief marshal prances down the Glencrutchery Road with a black flag to haul him off the course. Still the flying trio of Norton aces—Guthrie, Frith, and White lead the roaring crowd, while Stanley Woods desperately hunts them—the best he can do is to get within 3sec of Crasher White. Ginger Wood is reported to be touring home from the Craig. Mellors drops out after a couple of fast laps. Thomas (Velocette) tries to force his way up to help his first string, Woods, but cannot quite get the pace. Behind him Foster (AJS) and Daniell (Norton) dead-heat for sixth place. The Manx kaleidoscope has not yet begun to oscillate. During Lap 4 the dials registering the progress of Woods and Guthrie click in close succession, and as they complete their fourth circuit Guthrie, starting three minutes after the Irishman, actually catches and passes him along the pits to establish a net lead of 3min 1sec over his dreaded rival.



"Who was that? The crowds scan their programmes as HC Lamacraft (Velocette) roars past at May Hill. (Right) Crasher White (Norton) chases Mellors into Ramsey. The deep finning of the new Velocette's cylinder head is noticeable. See, too, how close Mellors is to the kerb."

Poor Foster (AJS) retires at Glen Helen with a broken fork spring—there will be competition to secure this fine rider next year. Joe Craig issues orders to his Norton men not to increase speed. Frith, in particular, must play tortoise to Guthrie's hare, in case the leader's engine should crack up at this furious speed and let one of the Velocettes up into the van. Flies pester the men terribly. They all change goggles at their pit stops, and a few ride with bare eyes in sheer desperation. And now the first flutter of excitement—Woods, with teeth set in his stern chase, catches Crasher White and passes him by 11sec, thus justifying Craig's tactics us bidding Frith ga' canny, For Woods is now only 46sec behind the second man, Frith, and if the uncatchable Guthrie should meet trouble the race might open up after all. Meanwhile we have leisure to note some good performances. Tyrell Smith (Excelsior) is going fine. Jack Williams (Norton) is well up, and Little (Velocette) can be proud of his position. Simo's absence is at last explained—the wee Spaniard took a mild toss near Ramsey, but escaped with a few cuts and bruises. Pinnington (Norton) retires—no reason given. All the fast men are now home after four laps, and Jimmy Guthrie, with the commanding, devastating lead of more than three minutes over Woods, can take things easily if he likes. The prophets have under-rated this little Hawick Scot, and no less his marvellous Norton engine. Pope protests via the loud speakers that his spill was not, as alleged, due to a skid, but the result of an engine seizure. Guthrie, the irrepressible, is still stunting. Not content with a 3min lead, he proceeds to shatter all his own records with a fifth lap of 26min 35sec—a mere 59sec faster than the 1936 record—speed, 85.18mph. Joe Craig anxiously hangs out the 'Go Easy' signal—all very depressing for poor Stanley Woods,

now three and a half minutes behind his main opponent. Or perhaps not? For if Guthrie goes out and Frith turns all furious-like, the Velocette's chance may come. Meanwhile Brett skids and falls at Sulby, picks himself up, and goes on. Woods piles a few more seconds on to his tiny lead over Crasher White, but cannot flutter Guthrie, nor seriously perturb Frith, who is still 60sec ahead of the Velocette—and increasing his lead. What does Joe Craig think of Frith's ideas on 'going easy'? Young Lamacraft on the Velocette keeps riding hard—a coining lad this! A pall of dull resignation seems to overhang this magnificent, furious race so far as the spectators are concerned. Ever since the flying Nortons asserted their ascendancy on Lap 1, we have had no wild excitements, no violent fluctuation's, no spills or mechanical bother for the protagonists. It is almost as if Woolwich Arsenal were toying with a village eleven. Strive as Woods may, he cannot hustle Guthrie. Round and round they circle, and after this penultimate lap Guthrie, deliberately slowing down in obedience to pit orders, canters past with a 4min 10sec lead over Woods!! Barring accidents, it is not a race so much as a march past to the watchers, whatever the riders may have to tell of heat, noise, vibration, anxiety, perils, shaving banks, and the like. Pepper, the Canadian ace, retires at Hillberry. Four fine laps at over 72mph have wearied his engine. Hallo, Woods must have flogged his engine too much, White is now 5sec ahead of the Irishman once more. Nortons are therefore 1, 2, 3 at the start of the last lap. The leader board shows amazing consistency for an 84mph race on 350cc engines over this searching course—the same four men have headed the field throughout. It is an even greater tribute to the men who design and make the models than to the men who ride them. Though Guthrie is now 40 years old, young Frith for all his youth and dash cannot hold him, and at the end of six laps is more than 21/2 minutes behind his first string. And when the team want a recruit, there is HL Daniell shaping magnificently. And so we turn to see the final stage. Click, click, go the dials. Guthrie circles relentlessly, though easing down a shade in obedience to his manager. Why run risks with the trophy in the bag? Ballacraine, Kirkrmichael, and the rest—at every telephone point he arrives like his namesake, the Flying Scot of the LMS. Finally, the red lamp for Craig-ny-Baa—here he comes—the stand rises to salute the grandest, speediest, easiest, and moat masterful of all Junior victories, at 84.43mph. Fantastic! Superb! Gorgeous! In our admiration we spare a moment to mourn the death of the widely prophesied TT hat-trick by Stanley Woods. Guthrie has so pulverised his field that a long wait must ensue before the tail-enders come in, with Frith starting over a quarter of an hour behind him. Frith must, barring trouble, be second. So the focus of interest shifts to whether Crasher White has' won or lost his three-hour duel with Woods. Crasher is a school-master—how his boys must idolise him! Here he comes! Woods has finished in 3hr 12min 30sec. What is Crasher's time? Hurry up with it, Ebby.

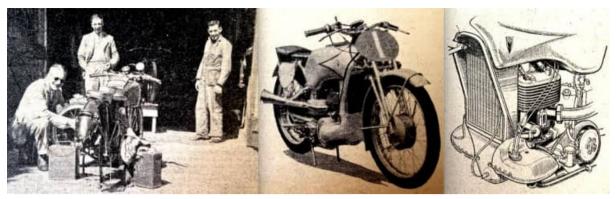






L-R: "Stanley Woods nearly produced a tail-less Man dog! The dog ambled across his path when he was streaking down Bray Hill. Guthrie swooping from one gutter to the other on his passage down Bray Hill was a sight to be seen to be believed! 'You can't do that 'ere!' Illichmann (NSU), after running out of petrol, bought a couple of gallons from a roadside pump, and was, of course, automatically disqualified from the race."

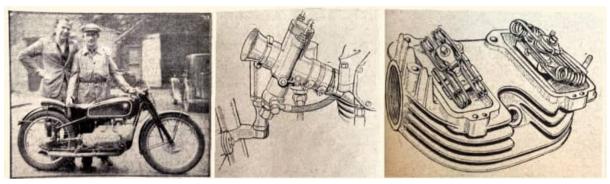
There's the Boy Scout running to the board with it—3hr 12min no seconds, by the gods! He's pipped Woods by a round half-minute. And there's the red lamp which heralds Frith into Governor's Bridge. He screams home—second man, surely? Yes, 3hr 10min 17sec—and, double sensation, he has equalled Guthrie's record of 85.18mph. He's a lot faster than Crasher White, and Norton quietly register another 1, 2, 3. HL Daniell, though unable to touch the leaders' speed, manages to snatch fifth place from Thomas' Velocette by 22sec. Both men rode splendidly through-out. Twenty-five finishers out of 39 starters in a race run at this high speed is a great tribute to racing reliability—could any car race in motoring history match it? A number of new names appear in the finishing list, and all may be proud to figure in it—Galway, of South Africa, and Faltner, of Austria, as visitors, especially merit congratulation. **Results.** 1. Jimmy Guthrie (Norton) 3hr 7,in 42sec, 84.43mph; 2, Freddie Frith (Norton); 3, John H White (Norton); 4, Stanley Woods (Velocette); 5, Harold Daniell (Norton); 6, ER Thomas (Velocette); 7, HG Tyrell Smith (Excelsior); 8, George Rowley (AJS); 9, JC Galway (Norton); 10, J Williams (Norton); 11, JE Little (Velocette); 12, HC Lamacraft (Velocette); 13, JW Forbes (Norton); 14, CAW Durno (Norton); 15, M Barrington (Norton); 16, JW Beavers (Norton); 17, N Croft (Norton); 18 AC Kellas (Norton) 19, A Sorensen (Excelsior); 20, CV Moore (AJS); 21, HE Newman (Velocette); 22, H Hartley (Rudge); 23, F Faltner (Sarolea); 24, CF Brett (Norton); 25, WG Job (Velocette) 3hr 58min 55sec (66.33mph). Retired seventh lap, JW Rathbone (OK Supreme); retired fifth lap, GT Pepper (Excelsior Manxman); retired fourth lap, J Illichmann (NSU); retired third lap, EA Mellors (Velocette), S'Ginger' Wood (Excelsior Manxman), M Simo (Terrot); retired second lap, NB Pope (Norton), LJ Archer (Velocette), H Pinnington (Norton), FJ Binder (Velocette), CH Manders (Excelsior Manxman), NB Myers (Norton; retired first lap, GL Paterson (Velocette). Newcomers' prize, JE Little (Velocette)."



L-R: "George Rowley looks at the world through (we hope) rose-tinted spectacles as he works on his AJS. With him are AR Foster, last year's Lightweight TT winner, and Matt Wright." "A three-quarter view of the DKW which shows the massive-looking front hub, which has its brake drum between the spoke flanges, and the cowling for the off-side carburettor." "The remarkably neat water-cooled two-stroke engine fitted to the Lightweight DKW machines. It will be noted that the cylinder is finned as well as water-cooled."

"IT IS DOUBTFUL if three people have ever finished fresher in the leading positions in a TT race than Guthrie, Frith and White. All of them walked into the enclosure in a perfectly easy way, showing no sign of stress or strain, and Jimmy G smilingly posed for the innumerable photographers and ciné men who formed a packed half-circle around him. When he could disentangle himself from the crowd he said that his ride had been straightforward and comfortable, and his only anxiety—and that a slight one—was when he learned that Frith was tending to pick up on him at one period of the race. He was enthusiastic about the spring frame, although, as he said, the improvement was not one to be described as having any single advantage so much as that it 'pulled the whole job together' and made one feel a part of the machine. His best description of its quality was that it definitely made him feel 10 years younger. Frith was also very happy and had enjoyed the race. 'Incidents' had been negligible, and he did not realise that he had been a cause of anxiety to the leader and was rather tickled by the idea that Jimmy G had suggested such a thing. White also had had a no-trouble run. He admitted to feeling rather tired at about half distance, but got his second wind at about the same time as he was signalled to keep going for a place. Like the riders, all three machines finished in tip-top order. Valves, chains, tyres and all the items that are liable to wilt and wear were excellent. All three engines showed bright markings on the pistons where the inlet valves had said 'How-dy!' to them. But these marks were merely bright spots and by no means indentations. According to Joe Craig this occurs with all the Nortons and is not a cause of worry. The piston of Guthrie's engine showed rather more of this marking than the others. According to Joe this was probably 'because he used the little cog in the gear box' a shade longer than they! Chains and chain tension were just right. The tyres were almost perfect and seemed good for many more races of the same distance. The 'medium hot' sparking plugs showed no signs of overwork; the 350cc Norton engines

run so coolly that they will hold full power on ordinary touring plugs for quite long periods."



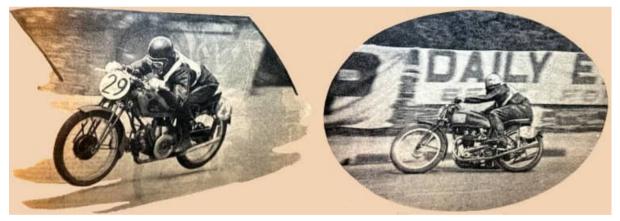
L-R: Jock West and his cheery German mechanic (neither can speak the other's language) pause for a moment to show off the imposing super-charged ohc BMW which West is to ride in the Senior race." "A flexibly-mounted carburettor is a feature of the 250cc TT Excelsior." "The cylinder head of the new 250cc Excelsior with the valve spring covers removed. The whole of the valve mechanism is enclosed."

"ACCORDING TO TT habitués the crowd at the Villa. Marina on Monday night, when the Junior Race awards were presented, was larger than ever. It was an open-air ceremony with Mr Ball, chairman of the ACU Competitions Committee, in the chair, and the Mayor of Douglas as the guest of honour who presented the awards. Enthusiasm was the keynote, but there was a serious side, too. Stanley Woods, who, like all the other award winners, was called upon to make a speech, referred to the dog incident. He mentioned that it might easily have meant the end of him and the dog, and added that he would like to meet the owner. When the two team prizes were presented, all three Norton riders went to the platform, together with Mr Mansell, managing director of the Norton concern, who expressed his own personal appreciation of the trio's efforts."



A fine impression of Tenni (Guzzi), the ultimate winner, sweeping through Bradden. No daylight is duscernible between the Guzzi's right footrest and the road!"

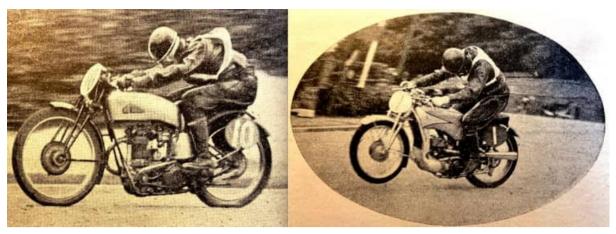
"THE LIGHTWEIGHT RACE was won for the first time in history by a foreign rider, Omobono Tenni, of Italy, steering his 248cc Guzzi to victory in 3hr 32min 6sec, 76 seconds faster than the winning time of 1936. S'Ginger' Wood (Excelsior) was second in 3hr 32min 43sec, and ER Thomas (DKW) third in 3hr 36min 36sec. The weather and conditions were good throughout. The lap record was broken by Thomas on his second lap, the 1936 figure of 29min 43sec put up by Stanley Woods being reduced to 29min 35sec (76.54mph). But the new record survived for seconds only, as Stanley Woods (Guzzi), starting one minute behind ER Thomas, chased him in on the same lap in 29min 27sec (76.89mph). Then on his third lap Tenni (Guzzi) established the final 1937 record at 29min 8sec (77.72mph). The expected duel between the Guzzi and DKW teams duly materialised, but was somewhat unexpectedly complicated by the splendid running of the Excelsior team, of whom HG Tyrell Smith lay third after the first lap, and S'Ginger' Wood sixth. Kluge, on the DKW, headed the field after one circuit, hard pressed in the order named by Stanley Woods (Guzzi), Tyre11 Smith (Excelsior), Tenni (Guzzi), ER Thomas (DKW) and S Wood (Excelsior). The leaders went at it hammer and tongs, and as so often happens with these over-stressed lightweights, many fell by the way. No team finished either in the club or manufacturers' ratings, and the sixth lap produced a regular debacle, in which several of the leaders disappeared for ever. This battle to destruction was the natural result of a first lap in which 45 seconds covered the seven leading men. It is only fair to add that the DKW two-strokes were compelled to make an extra stop to replenish their fuel



"Another picture of Tenni (Guzzi) which gives an excellent idea of his materly riding." (Right) "A past master at the game—HG Tyrell Smith (Excelsior) at Bradden. Every line of his body suggests concentration."

tanks, and the riders were thereby compelled to flog their engines unusually hard to recover this deficit. During Tuesday night the wind shifted to the south-west. Instead of an ultra-marine sea, domed by a turquoise sky and ivory clouds, a leaden land- and seascape greeted all eyes on Wednesday morning and, with the wind in a wet quarter, the outlook was not too good—75 minutes before starting-time visibility at the Bungalow was only 20 yards. But the sun strove manfully to push through, and half an hour later the Mountain wore only a light veil of mist. With a quarter of an hour to go you could see a thousand yards anywhere on the high ground, and a light film of moisture was drying off even the shadier sections of the course. Conditions improved steadily as the day

wore on, the sun won through, and nobody had the slightest cause for complaint. This Lightweight TT opened in a unique atmosphere, for none of the pundits considered that British machines stood a dog's chance of victory. The popular tips were Stanley Woods on the Guzzi or Kluge on the DKW—this German ace has mastered the intricacies of the Manx circuit with a swift brilliance that leaves the oldsters gasping, However, a few folk timidly suggested that Tyrell Smith (Excelsior) might even now play a hand, though their hopes were not generally shared, and most of the spectators, in despair of a home success, cultivated an air of detachment, speculated whether the reliable Guzzi could hold the faster DKW, and polished up their sportsmanship in readiness to applaud a foreign victory. Only 26 of the 33 entries actually faced Ebby. Paterson was licking the wounds sustained on Monday. Cauchy had just failed to qualify, and his reasons were not accepted by the stewards. Schouppe, having crashed on the Continent, did not put in an appearance. Schorg and Le Roy were similarly complete absentees. No rider was available for the fourth Guzzi, and as for poor Simo, though the starting fee promised him by his foreign employers was vital to him, Dr Pantin was adamant; after Monday's spill the wee Spaniard was adjudged unfit for the ordeal. On the way to the start we heard that Tommy Farr had K0-ed Neusel—was this an omen? At 10.50am the bugles sounded, scouts bearing the banners of seven nations led the procession on to the gridiron, and conversation again became possible—really, these little 'uns make far more noise in warming up than the Junior buses; but perhaps the DKW two-strokes are mainly to blame for that. Everybody got away nicely and received suitable ovations, the chief tributes being awarded to Stanley Woods for his gallant solo effort against Nortons on Monday, and to Tyrell Smith in recognition of his resolute riding on Monday and of his ranking as Britain's chief hope against the Continental menace today. Before each DKW ace departed a mechanic sprinkled both bar and gloves with French chalk to ensure a non-slip grasp. The DKW exhausts made most of the other engines sound like a maiden's sigh. The crowd at headquarters was on the thin side, but there were big gangs of enthusiasts round the course. As the last man departed the weather reports became increasingly reassuring, and we busied ourselves with speculating on the problem of the DKW's extra pit stop, Kluge's surprising mastery of the Manx course, and the busily clicking dials. The last suggested that Whitworth, Archer, Hartley, Cook, Martin, Wünsche, Tyrell Smith and Tattersall were not dallying by the way, while the super speedsters were, of course, fairly swallowing slower men immediately ahead.



"Brooklands habitués will recognise this familiar pose of LJ Archer. The New Imperial has apparently just landed after striking a bump, for both tyres look curiously flat. (Right) Bump Bray Hill momentarily throws Ernie Thomas (DKW) into a strange pose on his machine. Note how the sprung rear wheel remains glued to the ground, although the front wheel is hopping."

Excitement began to peak as the field returned. Now we should really he able to verify surmises. Were the foreigners as fast as the scouts had reported? Thomas (DKW) had done a fast lap; but No 1, Stanley Woods (Guzzi) who started No 3, was 10 seconds faster. Oh joy! Tyrell Smith, who started No 24, was a bare two seconds behind the Guzzi. But a late starter, the audacious, amazing Kluge, on his first TT lap, after a brief practice largely wrecked by fog, had the impudence to head the field with a meteoric lap eight whole seconds faster than our one and only Stanley, while Tenni was only 9sec behind Tyrell Smith. Just 45 seconds covered the seven fastest men; and on their tails howled a good-sized mob of fractionally slower individuals. Some said these whippersin were slower because they couldn't help it. Others opined that in nearly every Lightweight Race the tortoise ultimately defeats the hare. In this race, at any rate, the proverbial Manx kaleidoscope still survives. The aces go off with a bang, and anon their tiny engines wilt under the strain, and the sixth or seventh lap lets some cannier fellow up to pocket the Trophy. Quoth the wiseacres: 'You'll see a holocaust of these quickies presently!' We all tried to look sage and wagged our heads. The stage was now nicely set for a really hectic race. Incidents were scarce on the opening circuit, but reports from all round the course stated that Tenni (Guzzi) was riding with a crazy abandon which created doubts about his finishing in one piece; thus early he fell at Governor's Bridge, and left part of his exhaust system as a memento. Canada disappeared for ever when poor Pepper had engine trouble at Cronk-y-Mona, and Warren's New Imperial cried 'Enough!' at the Gooseneck. In terms of nationality the-leader-hoard presented a strange appearance indeed: (1) German machine, German up; (2) Italian machine, Briton up; (3) British machine, Briton up; (4) Italian machine, Italian up; (5) German machine, Briton up; (6) British machine, Briton up. Anyhow, Excelsiors were evidently out to stall off the foreign menace, and the first dozen included four Excelsiors, three DKWs, two Guzzis; one New Imperial, one OK-Supreme and one CTS. And now for the

real fireworks, we all said. Certainly ER Thomas (DKW) and Stanley Woods (Guzzi) contributed their very best. Thomas as No 1 pared 8sec off Woods' 1936 lap record, establishing new figures of 29min 35sec (76.54mph). He had reeled off two complete laps of this ferocious 37½-mile course in 60 minutes dead with a 250cc engine. He held the record for precisely seven seconds, at which moment Woods chalked up an even faster lap in 29min 27sec (76.89mph). This fantastic circuit was too much for Kluge, who dropped to second place, though only by a single second. Tenni was not quite so fast as on his first lap, and lower down the list Tattersall slowed a shade, and Galway, the swift South African, jumped up quite a piece. Meanwhile, Goddard (OK Supreme) found his engine less 'supreme' than usual, and packed up at Ballacraine. Young Tiffen (Excelsior) dropped out on the Mountain, and Renwick (OK Supreme) was slowed with an oil leakage. The German mechanics, resplendent, in bright blue dungarees, were greatly depressed by Kluge allowing himself to be passed, and hung out a board bearing a small 'o' over a large 'T'; we hoped Kluge knew what it meant, for nobody else did. Who would be a team manager in this hare-and-tortoise business? Super-human judgment is demanded to decide when to wave your men on and when to hold them back. Course reports spoke of terrific cornering by the leaders. If a 250cc machine is to aim at 80mph lapping, the rider must get his vantage on the bends, for his flat speed and his acceleration are alike limited. Two laps had now gone, and a blanket of 23 seconds covered the first six men. No further records can happen just yet, as everybody is due to stop for fuel. The aces get through this anxious business with their usual well-drilled



"ER Thomas (DKW), who was third at 73.17mph, the first time he has been placed in a TT race. (Right) O Tenni, the first foreigner to win a TT, seen on his victorious Guzzi, after his win at 74.72mph."

dexterity, though it was ominous that Stanley Woods had something of a wrestle to restart, and needed a longish push. Meanwhile, Mann (CTS) is reported as having a misfiring engine near the Bungalow; anon he retires—official reason 'gear box'. We know those gear boxes which misfire in the Island—they are first cousins to the magnetos

which seize up! And sadness descends when one of the faster Excelsiors, that of Manders, who is lying seventh, disappears with engine trouble near Crosby. Another of the leaders, N Cook (OK Supreme), goes out at Ballaugh for similar reasons. Already five of the six teams competing for team trophies are scuppered by the loss of a man apiece, only the DKW trio remaining intact. Yes, the pace is too hot to last. Woods has added a little to his lead over Kluge, whom he now heads by 9sec, but Tenni is evidently jealous, for although he has to brake hard for a fill-up at his pit, he contrives to set up yet another lap record, beating Woods' second lap by the fat margin of 19sec—29min 8sec (77.72mph). Tyrell Smith, perhaps wisely, is attempting no records; he effects a lightning pit-stop, and dashes off at a pace nicely estimated to score if the foreign aces strike trouble. SV Smith (Excelsior) has a niggling bother with his filler-cap at the pit, but fakes it with rubber bands. The crowd speculate whether the DKW machines must face an extra pit-stop. Their mechanics confirm the surmise with sadly shaking heads; the tanks cannot last four laps, as the four-strokes can. Three laps are ample to furnish the general shape of the race. No question but the foreigners are a trifle too fast for the Excelsiors in an imaginary world where every deserving lad gets a non-stop; but 250cc non-stops are a big 'if' at this speed. Wünsche, on the third DKW, has not quite the class of Thomas and Kluge. Archer, on the New Imperial, is very formidable—perhaps slightly outspeeded, perhaps riding with deliberate restraint. Lower down, Galway (Excelsior), Tattersall (CTS), SV Smith (Excelsior) and young Moore (New Imperial) hang on the flanks of the leaders waiting for a slip. But unless a foreign banner is to grace the victor's laurel wreath to-day, we must apparently trust to Tyrell Smith and 'Ginger' Wood (Excelsiors), or to Archer's New Imperial. Lap 4 will be a shade quieter, as pit stops at its beginning eliminate record breaking. The clocks indicate steady progress all round the invisible hinterland. Only seven of the 26 starters have retired as yet. Sorensen, the Danish rider of an Excelsior, has a half-seized engine on the hills, but declutches, frees it, and continues.



L-R: "Can you hear me mither?' Tenni's blue-overalled mechanic tries to make himself heard during the warming up. Stanley Woods, just before diving down Bray Hill: 'Hope there's no dog at the bottom this time!' Ebby: 'Eh, Tenni, wait for it m'lad!'"

There are long, dull intervals when nothing happens—after all, we have now only 19 men strung out over the 37½ miles. The BBC men are frenziedly switching from one of their boxes to another in an effort to find something to talk about. As the leaders range from 1 to 33 in their numbers, with half a minute between each pair, a lap most be completed by all before we know how things really stand. Archer (New Imperial) does a remarkably deft fill-up, and Pa Archer, who serves his son as pit attendant, tells him not to hurry; there is nobody on his tail, and the policy is to let the men ahead crack each other up. One by one the fast men arrive—the same six who headed Lap 1, but with marked changes of order. Tenni's pit signal is 3W/10, whatever that may mean. Possibly 'Woods leading, you third!' Actually Tenni has hopped up into second place, and the Guzzi stable are all smiling huge, swarthy smiles; but what did the '10' mean, for Tenni is 26sec behind Woods? The leading sextette are stringing out. It now takes 2 min 37sec to cover them, as against 25sec after Lap 1. But to show how class distinctions are facts in motor racing, it would take more than 12 minutes to cover the second six!Tattersall has to stop to change goggles, as the pair in use are a black mass of mangled flies. Told his speed, he remarks drily, 'Somebody must be pushing me, if I'm really as fast as that!' Sorensen, in spite of engine tightness, has climbed into the first 12; or perhaps it was his climbing that tightened his engine? Very soon we shall discover who has been flogging a tiny power unit rather recklessly hard. Alas, poor Galway retires with engine trouble at the Bungalow after three fine, fast laps, and both the Empire representatives are now out. The end of this lap definitely settles one doubtful point, for the Guzzis, like the British entries, scream through non-stop, all having tanks which can last four laps. But the German two-strokes, condemned to three-lap tanks by their thirstier engines, must sacrifice anything from 30 to 60 seconds on a second fill-up. Who is accelerating, and who decelerating? The leader's speed for the first three laps had equalled the 1936 record; but pit stops have now spoilt that figure. Woods' fifth lap takes 29min 40sec; Tenni's, 29min 43sec; Tyre11 Smith's, 29min 34sec—hello, has Tyrell decided that he must open up a trifle after all? But while we are occupied in these calculations we fail to watch the clocks earnestly and—"Where's Kluge?" He just isn't! He just stopped somewhere between the start and Ballacraine. Changing a plug, no doubt? No, he's been too long for that. The fastest and most brilliantly ridden of the German machines is out. Yes—oh, hard luck! a broken throttle wire of all hoodoos. Of his team mates, Thomas hardly looks fast enough to flutter the leaders, and Wünsche hasn't quite got the hang of the circuit. That will narrow the race to a Guzzi-Excelsior duel, with all the odds on Woods and Tenni, who are in the lead. Meanwhile, Warburton (OK Supreme) packs up near Sulby—that means a horrid long trudge to Ramsey; and Whitworth (Cotton) ceases racing for the day at Kirkmichael. England (Cotton) follows their example at Crosby—the pace is a little too hot. Wünsche makes his second petrol stop and is ordered to step on it; he must wish that he could, but he is nearly 8min behind Woods. Martin is reported fettling his Cotton at Governor's Bridge; he fettles deftly, and carries on. We note that Archer has pushed his New Imperial into the leading six, and

that Hartley's singleton Rudge has entered the first dozen. And now the whimsical demons who annually make these tiny engines their sport decide that the time has come to upset things generally. Since tragedy befel Kluge, we had settled down to calm clock-watching, when suddenly the peace of a sunny afternoon is rudely broken by a hoarse blare from the speakers, 'Ramsey telephones that Woods has passed through misfiring!' Well, we say half-heartedly, Stanley's up to time, and some misfires clear themselves. His dial clicks fairly punctually: he arrives. Doesn't sound too bad? Oh, hang, there's a miss. And another! The Irishman is under no illusions. He protrudes a downstuck thumb as he screams past at perhaps 75mph with a miss every fifty yards or so. Gosh! That means a Tenni-Tyrell duel—what had Tenni got in hand of the Excelsion last lap? Five seconds—ye gods, a cracker finish even now! The foreigner isn't home yet! as the crowd ripples with an excited buzz of argument and speculation, poor Thomas comes in for his third pit stop with a leaking tank. Sorensen's piston expresses its dislike of being forcibly un-seized, but selects the Highlander Inn as the venue, doubtless to Sorensen's gratification. And then disaster indeed—'Tyrell Smith (Excelsior) has retired with con-rod trouble at the Craig!' Three of the speed six are on the sidewalks, and one at least of the surviving trio is limping. Why, Tenni is out by himself almost. There is only 'Ginger' Wood left chasing with a hope; and last lap—let's see—'Ginger' was—yes— 3min 12sec astern. An Italian win seems soundly booked for to-day. Stanley is making a crawley sort of progress on the clocks—evidently his misfire is the sort that doesn't clear itself. No—he has retired at Sulby with broken valve springs. But 'Ginger' Wood seems to know something. His sixth lap is a real flasher in 30min 15sec. We strain our eyes to see what signal he gets, but the crowds hide it. The 'all-out', of course. And Tenni? Signor Perodi gives him a board bearing 1/22. Rather a bad blunder if the '22' is meant to indicate his lead in seconds, for actually the Italian has over 3min in hand over 'Ginger' Wood, and his riding has been wild enough to need damping rather than gingering-up. Aha! I have it. It is Stanley Woods the pit has in mind, and they don't realise that Stanley is down and out.



L-R: "A travelling marshal sets off to find a clue to Kluge's (DKW) mysterious disappearance between Crosby and Ballacraine. There's an R in the month for N Cook

(OK Supreme) and J Mann (CTS) who both retired on the third lap. Silent picture of Ernie Thomas splitting the heavens with the scream of his DKW down Bray Hill."

Anyhow, off streaks Tenni on his last lap with the race on a plate, and thousands of us wish we could let him know his exact position. Renwick (OK Supreme) and Martin (Cotton) enter the charmed 12 on this lap. All over now bar shouting, we opine, and settle down to watch the clocks, disturbed only by the fear that Tenni, ignorant of the true situation, may over-ride a little—and Tenni's ordinary riding is enough to paralyse leopards. The two vital clocks—Tenni, No 29, and 'Ginger' Wood, No 33—click punctually. But running the stop watch against them, it looks as if 'Ginger' was doing the hectic, rather than the Guzzi ace. The irony of it all is that Wood started 2min after Tenni, so that Tenni is probably unaware that he is being chased like this; and Wood must know he has a fighting chance. Round they circle, reported from every point in turn. Tenni's over Snaefell—at the Craig—his red lamp—here he comes, flat out. A 32min 32sec lap! Not so hot! By heavens, 'Ginger' can just do it yet, if he's got enough engine surviving after 3½ hours of steady flame. He's at the Craig—he can do it—no, he can't yes, he can! Well, the ACU aren't proclaiming Tenni yet, anyhow. Here's Ginger! We jerk our bodies in the vain desire to urge him forrards. Watches snap resignedly—he's missed it. A gorgeous seventh lap in 30min 18sec had stolen nearly two whole minutes back from the Guzzi, leaving the Excelsior second by a bare 37sec. What a race! And a popular victory enough, compensating the gallant Guzzis for past disappointments. All is anti-climax now. ER Thomas gets home a sound third, and Archer is fourth, after a gallant race in which he probably underestimated the speed required to win. Wünsch is fifth, doubtless mourning the cruel luck which prevented Kluge from having his full say. Tattersall's sixth place will set Lancashire alight, and the other three steady finishers, Moore (New Imperial), SV Smith (Excelsior), and Martin (Cotton) all gain thoroughly deserved replicas...This race is the writing on the wall for British 250s. On an easier and flatter course the DKW team would certainly have pulverised us, and possibly the Guzzis as well. Unless research and experiment produce faster British 250cc engines for 1938 we may see foreign machines finishing 1,2,3 in this event." Results. 1, 0 Tenni (248cc Guzzi); 2, S Wood (249cc Excelsior); 3, ER Thomas (248cc DKW); 4, LJ Archer (246cc New Imperial); 5, S Wünsch (248cc DKW); 6, C Tattersall (249cc CTS); 7, CV Moore (246cc New Imperial); 8, SV Smith (249cc Excelsior); 9, LG Martin (248cc Cotton); retired seventh lap, Stanley Woods (248cc Guzzi); H Hartley (249cc Rudge); S Renwick (248cc OK Supreme); retired sixth lap, HG Tyrell Smith (249cc Excelsior); SA Sorensen (249cc Excelsior); H Warburton (248cc OK Supreme); retired fifth lap, E Kluge (248cc DKW); MD Whitworth (248cc Cotton); R England (248cc Cotton). retired fourth lap, JC Galway (249cc Excelsior); retired third lap, J Mann (249cc CTS); N Cook(248cc OK Supreme); retired second lap, SH Goddard (248cc OK Supreme); WT Tiffen (249cc Excelsior); retired first lap, GT Pepper (248cc Cotton); PR Warreen (246cc New Imperial)."

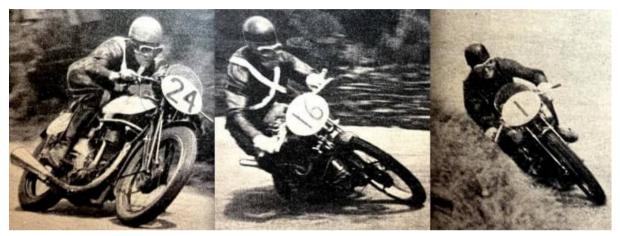
## MOST THRILLING SENIOR EVER HELD



can't believe I've won!' said Frith at the finish. Here he is seen being congratulated by Joe Craig (in the middle) and Stanley Woods, who was second."

"AFTER THE MOST SENSATIONAL and heart-stopping' race in Manx history the Senior TT was won by FL Frith (Norton) in 2hr 59min 41sec at an average speed of 88.21mph, an increase of approximately 2½mph on last year. Frith was never lying higher than second until the sixth lap, when, following on the failure of his first string, J Guthrie, he received the 'All Out' signal from his pit, and set about Stanley Woods (Velocette), who had assumed first place when Guthrie fell out on the fifth lap. At the end of six laps Frith and Woods actually dead-heated, and both men began the last lap determined to face all risks. But whereas Woods merely produced a very fast finish, Frith hurled his machine

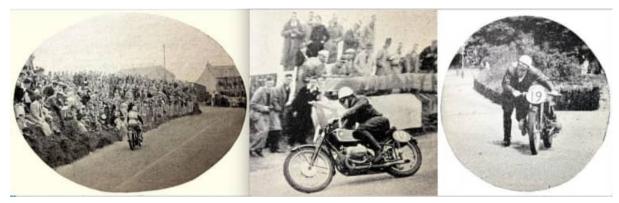
round the Island at record speed, actually breaking 90mph for the first time. He won by the narrow margin of 15 seconds. The lap record had already been repeatedly broken in the earlier stages of the race without anybody touching 90mph, although Guthrie came within 3sec of this astounding feat. Second place was won by Stanley. Woods (Velocette) in 2hr 59min 56sec (88.09mph). Owing to a wide difference in starting times Woods finished ten minutes before Frith, and had to spend an agonising interval, uncertain Whether he was first or second, third man was JH White, on a Norton, whose time was 3hr 8min 44sec (83.97mph).



L-R: "A wonderful impression of Freddy Frith, the winner, poised over the tank of his record-shattering Norton. Tenni's cornering with the twin-cylinder Guzzi at Hillberry was truly amazing, as this photograph indicates. The Italian ace banked his machine over at an almost unbelievable angle and took the corner faster than anyone else. A thrilling glimpse of Guthrie (Norton) shaving the grass at Hillberry. Grazing a bank like this at TT speeds calls for exceptionally fine judgment."

The foreign menace failed to materialise. Tenni, on the Guzzi, was not quite fast enough to harass the British aces and retired with minor mechanical trouble after four laps. JM West, on the supercharged BMW, was very fast and well placed until a leaking petrol tank compelled him to stop for refuelling every lap in the second half of the race. Velocettes won the manufacturers' team prize, being represented by Stanley Woods, EA Mellors and LJ Archer, while the club team prize was awarded to the Birmingham MCC No 2 team, consisting of Stanley Woods (Velocette), J Williams (349cc Norton) and EA Mellors (Velocette). J Guthrie (Norton), after leading for four laps, retired as the result of engine trouble. At 4am on Senior morning Douglas lay drowsing in bright sunshine and in a silence broken only by the cheeping of sparrows. The Snaefell massif was silhouetted in green and russet against a golden sky, and the sea stretched away towards the Cumberland hills like a huge mirror of smooth, green glass. Towards 6am the silence was not so much broken as shattered, for the brand-new steam packet SS Tynwald arrived on her maiden voyage, to be saluted by every gun, siren and rocket station within range. Presently some seven big steamers disgorged about 12,000 additional enthusiasts to swell the crowds of motor cyclists already in the Island. The

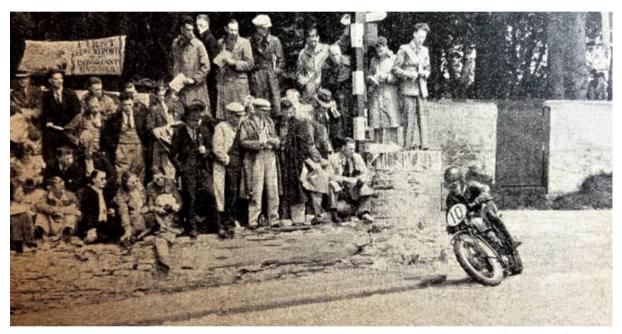
sun retired at intervals and the temperature fell, but unless Mona observes the proverb 'fine before seven, rain before eleven', there was every prospect of perfect conditions for the great race.



L-R: "A few seconds' 'rest' for Stanley Woods: as he brakes for crowd-lined Craig-ny-Baa he straightens a back weary from lying flat along the tank." "Two pictures which tell their own story of Jock West's wonderful performance with the supercharged BMW: A glimpse of him at the Craig during his duel with Frith (Norton). (Right) He is seen pushing-in from Governor's Bridge to the pits after he had run out of petrol due to a split tank."

And so it proved, for there was neither glaring sun nor chill wind nor damp tarmac all day, although the spectators could probably have done with a little more warmth. After early breakfast, long, straggling queues of racing fans trailed out on every road leading to the course. Douglas, as usual, resuscitated the whole of its transport for the occasion, including hosts of prehistoric petrol vehicles Which could never pass a police test. Rucksacks, the unshaven cheeks of many males, together with the unpowdered and somewhat tousled appearance of many youthful damsels, indicated that not all the sightseers had slept on dry land overnight. The favourite coigns of vantage were soon overcrowded, and the attendance is thought to have been a record. A feature of the occasion was a luncheon given by the hospitable Mayor of Douglas to all pre-war TT riders who were able to cross. This being the 30th year of the TT, the appropriate guest of honour was Rem Fowler, who won the twin-cylinder class in 1907 on a Norton at 36.22mph. Some of those present had seen 40, 50, 60, 70 and 80mph 'broken' in these races. Were they destined to see 90mph exceeded to-day? The Norton engineers thought not, but The Motor Cycle said 'Perhaps!' In any case, the race bristled with special interest, for the Velocette was once more out to challenge Norton supremacy, and Stanley Woods, after two disappointments in one week, was sure to give his Irish best. Moreover, Tenni, on the Guzzi, was thirsting for blood, his appetite whetted by Wednesday's win, while Jock West, on the supercharged BMW, was probably handling the fastest machine in the entry. Incidentally, the BMW is not, as some suppose, the first supercharged model to contest a TT, for the four-cylinder AJS used a blower last year, and, strictly speaking, all the DKW racers are supercharged. The supreme aces were

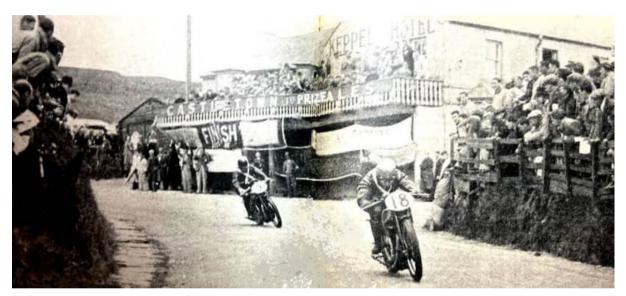
fairly distributed over the starting order, with Guthrie as No 1, Woods No 4, Tenni No 16, West No 19, White No 20, Daniell No 22, and Frith No 24. Four Junior machines competed—two Velocettes (not the latest 'works' models), and two Nortons (also the more standard pattern); so Beevers and J Williams were pitted for Nortons against Archer and Lamacraft (Velocettes) in a miniature edition of the familiar Island duel. At 10.30 the riders were released from the official garage and started to warm up their engines over a pocket circuit marked out in Glencrutchery Road with corporation dustbins serving as pylons; the BMW made as much noise as all the rest put together. There were 23 starters. Clift had gone home for private reasons; Barriligton had not got his hoped-for mount; Mellmah Fleischmann and Marama-Toyo had never reached the Island. At 10 minutes to 11 came the



"The crowd watches EA Mellors (Velocette) shaving the wall at Governor's Bridge in an effort to save precious seconds."

fanfare of trumpets and the parade of stars to the gridiron, headed by the banners of eight nations. The Governor, Sir Montagu Butler, descended and shook hands all round for the last time—he will be governing his college instead of the Island in June, 1938. The five-minute Klaxon screeched. Everybody congratulated everybody on the perfection of the conditions, and at 11 o'clock Ebby barked 'Go!' to that lean, sinewy, unassuming Scot, Jimmy Guthrie, who, in spite of his 40 years, is probably still the most formidable road-racing motor cyclist in the world. Everybody got away smoothly. Vartak, the Indian rider of a Rudge from Poona, who admits that he is just learning the course, but says he is going to win some day; Pope, the first motor cyclist to lap Brooklands at 120mph; Woods, with eight TT wins to his credit, the first of them 14 years ago; Beevers, who is a loco fireman when he is not racing; Galway, the hope of South Africa, and definitely a coming man; West, with his 'blown' German transverse twin; Forbes, recovered from a long spell in a Manic hospital last year, and now a naturalised Briton; Oliver, Gatley and

Lovett. greatly daring to scrap on 500s on their first visit to the Island; and all the famous Manx stars. Almost every man in the list a personality. Perhaps Frith attracted astute observers more than most. There is no mistaking the red-hot keenness of this lad. He awaits Ebby's signal like a greyhound straining at the leash, and he is crushed flat on his tank within 100 yards of the line. Very soon they had all departed, and with so small an entry there was a long spell of clock watching before anything more could happen under our noses. The delay was pleasantly spent in listening to is really excellent broadcast commentary by Padre Stenning, of the Manx MCC, interspersed with the usual speculations and arguments. Neither dials nor telephones told us much. Tattersall (Vincent-HRD) dry-skidded at Quarter Bridge without serious results. Oliver (Vincent-HRD) lost a moment or two short of Ballacraine, The foreign invaders, Guzzi and BMW, did not seem to be gobbling up many of the men who started just in front of them. Sulby Bridge added yet another to its long catalogue of victims, claiming an unlucky débutant in Gatley (Norton), who tackled it too fast and escaped unhurt but with a definitely bent model.



"JC Galway (Norton), the South African star, roars through Keppel, closely followed by Jack Williams (349cc Norton)."

The other clocks clicked regularly enough, and No 1—Guthrie—gave us a foretaste of good things to come by lapping from a standing start in 25min 49sec. This was 13sec faster than Woods' 1936 record lap, but 2sec slower than Jimmy's own evening practice circuit; as the first lap begins 50 yards past Chronograph Villa, it does not rank for record. Woods seemed even more flattened out along his tank than Guthrie, but was 18sec slower. Stanley, have you forgotten, lad, that you were beaten last year by starting too gently? And 18 seconds was the precise measure of your mistake then! One by one they return, the Guzzi with rather a high-pitched screech, the BMW. with a deeper roar, suggesting some very large jungle beast in a foul temper. We are soon able to sort out the order. No real surprises, unless you counted on Stanley reeling off a terrific first lap, and perhaps West is a shade higher, and Tenni two or three places lower than most of us

expected. Vartak is very late; he rides in a very sitting-up position; tours at about 60 as practice for greater speeds next year; and smiles genially at his friends along the route. Lovett opens finely for a débutant, and Forbes is no sluggard. Five men lap at over 85mph from a standing start! As every seasoned spectator knows, Lap 2 is the signal for fireworks. A flying start, a warmed engine, a machine-shop which has not yet begun to wilt under the strain, and a rider who is still feeling quite fresh. These are the conditions which make for record laps. Other circumstances occasionally exert a similar effect, for which read on. So we all sat up to watch the fur fly. True to form Jimmy Guthrie, streaking round an empty circuit as No 1, calmly hoisted the 1936 figure by nearly 2mph, lapping in 25min 35sec (88.51mph). We sit back with a gasp. The Norton people were right! If Jimmy cannot break 90 when he's fresh, nobody can break it. 'Wait for Stanley!' opined a listener. Well, he comes, but does not look quite so frenzied as Guthrie. No! 25min 43sec is his figure, and he is dropping farther astern—26sec behind Guthrie, as against 18sec after the first lap. Nevertheless, the Irishman has passed Frith by 7sec and has jumped into second place. Tenni looks terrifically fast, and sounds it, but has jumped only one place; his approach to Bray Hill was uncertain and frightening. West (BMW) is drawing very slowly away from White (Norton). We all expected Daniell (Norton), Mellors (Velocette), Pope (Norton), and Archer (Velocette) to run forwardly, but Galway, the South African, is evidently a real good lad to lie ninth in the company of these maestros. CJ Williams (Vincent-HRD) forces himself into the, leading 12. Pepper, the Canadian, is lost, and ultimately a travelling marshal finds him with a dry tank in the Ramsey area. These travelling marshals (HJ Bacon and Vic Brittain) relieve mach anxiety when a man breaks down far from a telephone point. On this lap Guthrie got a '1' at his pit, but Woods no signal at all; Stanley evidently has a private station far front the madding crowd. The fireworks normally peter out on Lap 3, when most men stop to pick up fuel. But Guthrie defies the custom. His pit is only a few yards over the finishing line, and nobody knows how far back he must shut off power to stop there. All the same, he pulverises his own 1937 record lap with a time of 25min 12sec (89.85mph). 'So near and yet so far,' grieved the men who had made bets on a 90mph lap. Whatever is Stanley up to? He hurtles past non-stop, clearly intending to pick up fuel after four laps instead of three. Well, that will confuse the issue a little, maybe. He is now 48sec behind Guthrie. EA Mellors is reported to be gear changing by hand instead of foot. Tattersall has to change a plug near Ramsey. Vartak retires with engine trouble near Crosby—not surprising, as he had a horrible miss when we last saw him. Tattersall has to fettle his clutch. Anon the lap times are complete. Woods and Frith have dead-heated on their third lap time. Tenni has caught White; this slim schoolmaster is as fine a handler of machines as world, but his slight frame hardly furnishes the stamina for such a prolonged battle. CJ Williams (Vincent-HRD) jumps two places. No records anticipated this lap, with everybody pit-stopping either at its start or its finish. Guthrie is punctual by jove! 3sec faster than the 1936 record lap, in spite of a pit-stop. Woods comes up to his pit in a beautiful, controlled 'slide', wasting not an inch or a second, and is off in

25sec dead—surely a record fill-up. He has lapped in 25min 30sec—18sec below Guthrie's second lap record. The sole effect of Woods' fourth lap pit-stop tactics is to make it appear that he is only 19sec behind the Norton, whereas he is actually nearly a whole minute astern. The clocks, checked by a stop-watch, suggest that the Norton is faster than the Velocette up the Mountain. Tenni pit-stops again—a bad sign, this. West passes with the



"A glimpse of CJ Williams (Vincent-HRD) taking the Craig after the fast section from Keppel Gate. Note the large crowd of spectators."

BMW still giving its characteristic formidable bellow, and hard-pressed by White. Tattersall (Vincent-HRD) turns a lovely somersault at Quarter Bridge, due to oil on his back tyre; he convinces the marshal that both he and the model enjoy such acrobatics, and gets permission to carry on. Frith is now just in front of West—fun to see whether with Frith as his mentor West will turn up the taps a bit. Hillberry reports that some men are snaking badly there—notably Frith and Tenni, of all people. Oliver takes a mild toss near Ramsey, and starts a petrol leak. The same dozen lead, with a few minor changes of order. The Velocette ridden by Archer is definitely top dog in the scrap between the four Junior competitors. Now, if ever, we said, for the 90mph lap. All eyes are consequently glued on No 1 dial, for Guthrie is the chief stunt merchant to-day. It duly swings round to 'R' (Ramsey), but there it seems to stick, and, horror! Woods, who started 90sec later, reaches Snaefell ahead. Guthrie has stopped! Still his pointer sticks—he is sunk, out, unsaddled. We don't expect stops from Nortons in 1937, and there is a sigh of incredulity when the travelling marshal sent out in search reports 'engine trouble'. That lets Woods up, and flings the race wide open after all, for after four laps Freddy Frith was only 50sec behind the Velocette. 'Don't talk bilge,' said somebody, '50sec at this stage of a race is the same as 10 miles to Stanley.' The Norton manager does not normally issue riding orders in a TT, but when Frith arrived one of the

members of his pit gang unquestionably gave him the 'Flat Out' signal. Everybody who owns a watch with a trigger starts timing the dial indexes. Meanwhile, the foreign menace quietly and finally evaporates. Tenni does some touring and drops out with a faulty throttle, and Jock West splits his tank and pushes-in to his pit. From now on he must pick up fuel every lap. Tattersall's clutch finally says 'No more to-day!' Archer adjusts his rear brake. Young Beevers works his way up into the leading dozen. The whole aspect of the race has been transformed in this single climacteric lap. Grossly unfair to many good men and true, I know, but from now on there are only two men in the race for most of us, Woods and Frith. And as they started Nos 4 and 24 respectively, they are riding 10 whole minutes apart, which intensifies alike our suspense and the problem of checking their positions. Woods circles regularly, and completes six laps. Up goes his time—we deduct his sixth lap time—25min 27sec—15 seconds outside record. Um-m-m—is that good enough with Frith on his tail? The 'phones chase Frith round for us—he seems to be gaining—he is gaining—he's early! Quick with his time, Ebby. Gosh! At the end of six laps Woods and Frith dead-heat at 87.88mph. And Frith has picked up no less than 10sec on Woods during that lap. Again Frith is given the 'All Out' signal. What Woods' secret station has signalled is their secret. Anyhow, both men probably know that the race is the tightest on record, and will scoff at all risks in their final Circuit. Nobody bothers about the other riders in the face of this heart-stopping duel, but the chronicler must interrupt to say that Crasher White appeared with a bleeding nose, hits of grass decorating his Norton, and a bent guard; that mechanical trouble put Forbes out after five splendid laps and that Lamacraft has actually hoisted his Junior bus to join Archer in the first 12—good for Velocettes! This was one of the occasions when a watcher at the Grandstand gets the full thrill of the TT. Ten thousand pairs of eyes were glued on those two dials—Numbers 4 and 24.

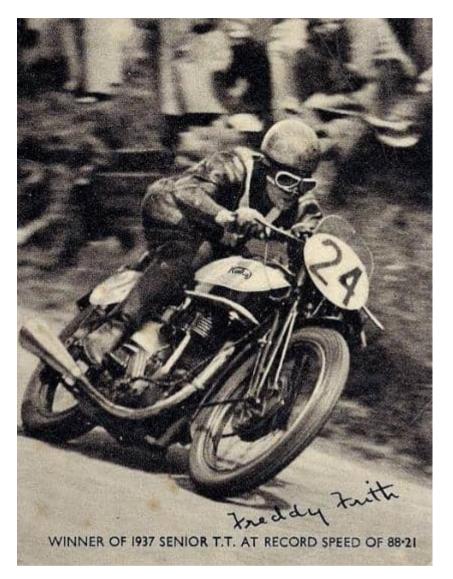


L-R: "Head-on pictures are too head-on here for my liking!' A Press photographer makes a dive for the bank at the approach of a competitor. Stomach trouble at the pits: Frith almost scrapes the score-board officials away on his terrific last lap. Exclusive impression(s) of JW Beevers (Norton) dropping down to Quarter Bridge. Don't go West, young man! Jock West makes a meteoric descent of Bray Hill. 'Rest of them went round the corner, sir!' CJ Williams (Vincent-HRD) runs off the course at Quarter Bridge."

This is what we saw in simultaneous couplings: Frith—B (Ballacraine); Woods—R (Ramsey); Frith—K (Kirkmichael); Woods—M (Mountain); Frith—K. (Kirkmichael); Woods—C (Craig-ny-Baa). What it meant was that if Frith could scuttle into Ramsey at

the moment when Woods roared past us, the pair were as near as no matter deadheating still. Sure enough, a full-throated cheer welcomed Stanley as he streaked over the line at 100mph, pressed horizontal on his tank with everything wide open. And at the very same moment a fresh outcry on a different note indicated that Frith's index had jerked to 'R', indicating that the two were as dead level on corrected time as ever a pair could be. Now began 10 minutes of really agonising suspense. Stanley's feelings can better be imagined than described. No doubt he dismounted in the paddock, where, surrounded by flushed faces and stammering men, he knew his fate hung in the balance by split seconds. Point by point the screaming Norton was signalled, until at last Padre Stenning grew almost incoherent—'There's only seconds in it—I daren't say anything definite...my watch isn't accurate enough for this.' Simultaneously Graham Walker in the BBC chickenhut was bellowing with confused anxiety. The speakers blared, 'Frith's through Hillberry—scraped his footrest—carried on!—he's at Governor's Bridge!' His red lamp gleams, and 10,000 maniacs leap to their feet and yammer idiotically. Nobody pretends to know who's won. We watch the Norton pit, knowing they'd have a good chronometer; and suddenly we see one of the Norton men turn round with face convulsed and jerk two upward thumbs at the crowd. Ten seconds later Stenning shouts, 'Frith by 15 seconds!' Yells and cheers and bellows, and we sink back, mop our brows and sigh. Then Stenning again, 'Frith broke the lap record, and did 90.27mph!' Fresh pandemonium! Twice this week has Frith pulled out a record lap just when it was really needed. He must be just about our best already—and 1936 saw his TT debut! His final lap was covered in 25min 5sec Pity poor Stanley! Behind these doughty rivals in this epic race, White deservedly annexed third place. Jock West would have been higher but for his burst tank and repeated pit stops. Mellors, Daniell, Pope, Archer and J Williams (the last two defeating many Senior machines on their 350cc models) enhanced solid and growing reputations. But special praise is due to Galway, the South African, for more than holding his own in fierce company over a course which he has not had much time to learn. Similarly, Beevers will be more than satisfied with the fine part he played. Tired thousands—for excitement is strangely exhausting—wended their way to the boats, satisfied, and resolved to come again next and every year until TTs are no more. But poor Stanley Woods—he has won a Senior by four seconds, lost another by 18 seconds, and now a third—by 15 seconds. He was evidently born for thrills. Results. 1, Freddie Frith (Norton); 2, Stanley Woods (Velocette); 3, John H White (Norton); 4, Ted Mellors (Velocette); 5, Harold Daniell (Norton); 6, Jock West (BMW); 7, JC Galway (Norton); 8, LJ Archer (Velocette); 9, Noel Pope (Norton); 10, J Williams (Norton); 11, Bill Beevers (Norton); 12, HC Lamacraft (Velocette); 13, JW Forbes (Norton); 14, CAW Durno (Norton); 15, Manliffe Barrington (Norton); 16, Bill Beevers (Norton); 17, N Croft (Norton); 18, AC Kellas (Norton); 19, Sven Sorensen (Excelsior); 20, CV Moore (AJS); 21, HE Newman (Velocette); 22, H Hartley (Rudge); 23, F Faltner (Sarolea); 24, CF Brett (Norton); 25, WG Job (Velocette). There were 39 starters, of whom 14 retired. Of the 25 finishers 20 gained first- or second-class Replicas. Manufacturers' Team Prize was won

by the Norton team (Guthrie, Frith, White). Club Team Prize was won by the Birmingham MCC with the same team as above."



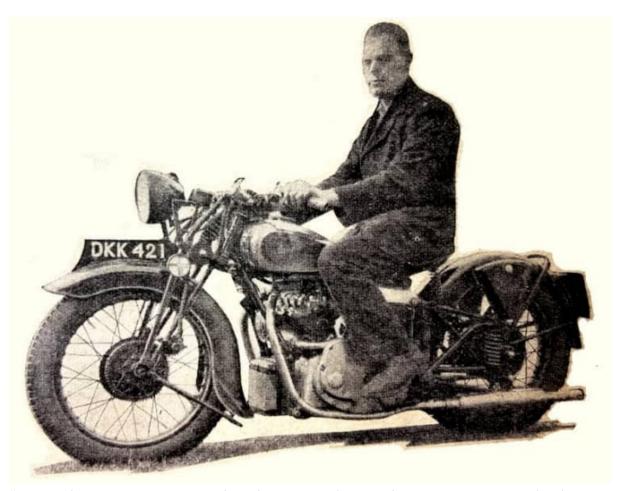
"TO STATE THAT the machines which finished first, second and third in the Senior could have gone out a second time and done it all over again is merely to place on record the truth. The tyres on Frith's and White's Nortons were a little worn on the offside—more so than those on Stanley Woods' Velocette—but this is only of interest and not of importance. As is usual, there was no real carbon in any of the engines. The piston crown of Frith's Norton was practically bone dry and just slightly marked by the inlet valve. There were no signs of excessive heat—indeed, the exhaust valve was clean and bright and obviously in perfect condition and the sparking plug just as it should be.

Neither brake required taking up. The primary chain was a trifle on the slack side, while the rear chain seemed 'just right'. Both chains were nicely oily. There was a fair amount of oil on the exterior of the engine. White's machine was in almost exactly the same condition except teat the piston was a little 'wet' on the crown. In addition, the handlebars and front mudguard were bent owing to a fall. The outstanding feature of the Velocette on which Stanley Woods finished second was the fact that there was not a

trace of oil leakage from the engine—or, for that matter, from the gear box. The whole valve gear, it is recalled, is enclosed. From stem to stern the machine was in the most magnificent condition imaginable. If there was one solitary item that might have stood taking up it was the rear brake adjustment—and that only a fraction."

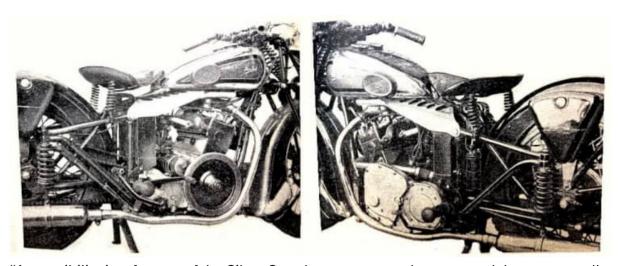


"ON SEVERAL OCCASIONS *The Motor Cycle* has published details of enthusiasts' home-built machines, and while these have undoubtedly reflected great credit on those concerned, they have usually lacked that 'finished' appearance that is the prerogative of the factory-built model. One of the exceptions comes from Mr W Jackson, of Bexleyheath, Kent. The 'Silver Streak', as the machine is called, incorporates a modified Austin 7 engine. Mr Jackson has stated that all the engine parts have been modified except the pistons and the connecting rods, and that the special crankcase has been cast in aluminium from Mr Jackson's own pat-tern. The machine incorporates rear springing. The water-cooled engine is set transversely in a duplex cradle frame (actually a modified BSA 'Sloper' frame) and a modified Scott radiator is fitted under the saddle with aluminium shields to deflect the air current on to the honeycomb. As the engine is set well forward in the frame, there is ample room behind it for the car-type carburettor and a normal motor cycle dynamo. This arrangement is said to make the tappets very accessible.

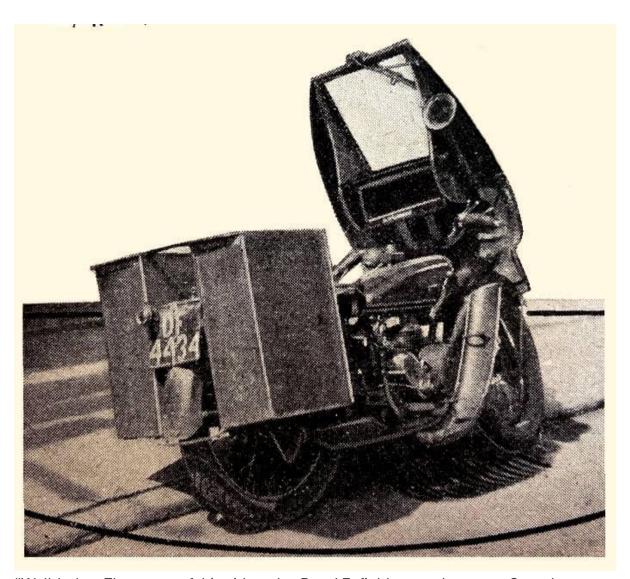


"The designer, Mr Jackson, astride his home-built machine. Although the engine is a 750cc water-cooled four, the machine is as compact as the average 500cc single."

Transmission is by chain through an old-type Triumph three-speed gear box, which has a specially designed clutch. A second sprocket on the engine shaft permits the camshaft and dynamo to be driven by a 'triangulated' chain. Both chains are enclosed in an aluminium oil-bath. Twin exhaust pipes are employed, one on each side of the machine, and these pipes are connected to a single manifold that lies immediately under the fuel tank. Ignition is by coil. The spring suspension is particularly compact, and it is said that a variation of only  $\frac{1}{16}$  in. occurs to the rear chain tension during the maximum movement of the rear wheel. As regards performance, the Silver Streak is said to handle like a normal 500 and to be capable of a top speed in the neighbourhood of 70mph. Petrol consumption is approximately 70mpg, and the oil consumption negligible. It is further claimed that no vibration is present at any speed, while the exhaust is almost inaudible. The equipment of the machine is well up to the best 1937 standards, and includes well-valanced mudguards, large saddle, narrow handlebars, tubular silencers, and a low-lift central stand. It is an eloquent testimony to the skill of the designer that with the exception of a few rough sketches no drawings were made during the construction of the machine, while Mr Jackson's only machine tool was a 41/2in treadle lathe."

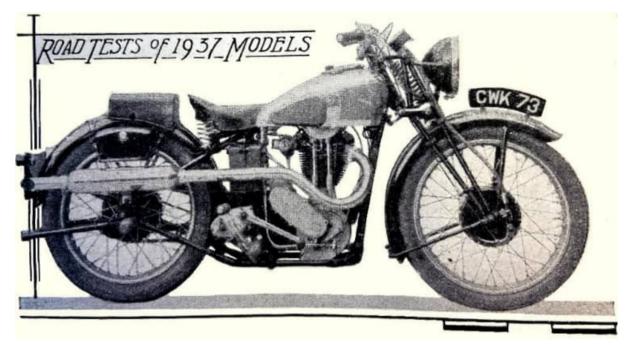


"Accessibility is a feature of the Silver Streak—tappets, carburettor and dynamo are all readily getatable." (Right) "This nearside view of the machine clearly shows the oil-bath chain case and the air deflector for the radiator. Note the sturdy construction of the spring frame."



"Well-laden: The owner of this side-valve Royal Enfield, recently seen at Stroud (Gloucestershire), has evidently carefully considered the luggage-carrying aspect; even the windscreen has a scuttle built into it."

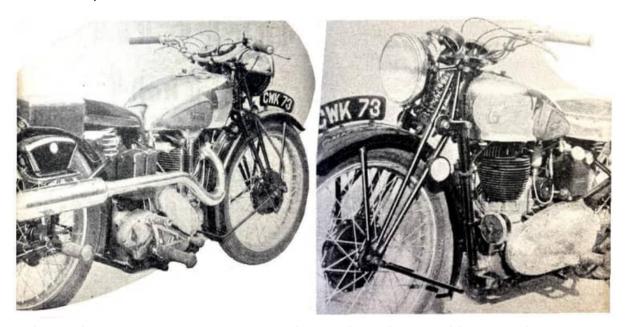
"THE 1937 RALLY AND inter-club meet of the Scottish ACU last week-end was very much an experiment. It was the first year that a mileage competition was included, and without question this was the most successful part of the proceedings. Five classes for various types and conditions of machine proved popular. All were well supported with the exception of the three-wheeler class, for which there were no entries. The Corstorphine Club were easy winners of the mileage competition with a total of 7,114 points. Second place went to the Leith &DMC with 3,209 points. After the usual gymkhana events a very pleasant day came to a close with the presentation of awards. Results. Best-kept Solo, D Marshall (1935 Ariel), Kirkcaldy; Best-kept Sidecar, W Clarke (Levis), Edinburgh; Best-kept Oldest Machine, R Inglis (1920 ABC), Edinburgh. Mileage Competition: 1, Corstorphine MCC, 7,114 points; 2, Leith MC, 3,209; 3, Aberdeen MC, 1,148; 4, Lanarkshire MC&CC, 1,120; 5, Perth MC, 981; 6, Lion MCC, 980; 7, Kirkaldy MC, 938."



"The 498cc Coventry Eagle has clean, straightforward lines that bespeak its businesslike capabilities."

"IN RECENT YEARS the name Coventry Eagle has been associated with a range of utility two-stroke models of various types—some with pressed-steel frames, others with rearwheel springing. Towards the end of last year, however, it was announced that three new models were to be added to the range. These were to be known as the 'Flying' series, and were to be marketed in three sizes—250cc, 350cc and 500cc. It is the last mentioned model which forms the subject of this road test. The Flying 500 Coventry Eagle is a particularly well-equipped machine to which considerable attention has been paid in the matter of detail. Not only does it possess front and rear wheel stands, but also an efficient prop stand. Concerning the rear stand, a praiseworthy contribution has been made in the interests of clean design. Although it is of the spring-up type, no springs are visible, for the tension springs are housed one in each tube and are linked to the rear fork ends by means of short arms. Another refinement takes the form of two brackets, one on each side of the rear mudguard, beneath the toolboxes, which simplify lifting the machine on to the stand. There are many other detail refinements that, combined with a sporting performance, make the Coventry Eagle a most attractive proposition. The riding position is comfortable for a rider of medium height. Although the handlebars are mounted rather higher in relation to the saddle than is usual, they are extremely restful, while the grips are set at an angle which comes naturally to the wrists. Thanks to the large saddle it is possible to adopt either an upright position or, by sliding back in the saddle, a more rigid position with the arms held straight from shoulder to wrist—an attitude which some may find more suitable for high-speed work. All the controls are conveniently mounted, while the majority are adjustable for position. At first, starting was somewhat uncertain owing to a combination of circumstances. However, after a few adjustments had been made to the carburettor it

was possible to start the engine with reasonable certainty. The kick-starter turns over the engine an unusually small number of revolutions, and as a result an almost fully retarded setting of the ignition lever was necessary if a 'kick-back' was to be avoided. For an engine with a genuinely high performance the idling was comparatively good. It would appear that the compression ratio is such that an ethyl fuel is to be desired, or a suitable mixture of petrol and benzole. The engine is extremely powerful and is easily capable of lifting the front wheel when the machine is accelerated violently from a standstill. The acceleration in the intermediate ratios is exceptional. In top gear the best response to the throttle was obtained from 35mph upwards to 70mph. There is no doubt that the gear ratios are ideally suited to fast road work. Third and second gears have a particularly useful range—72mph and 58mph respectively. The performance in these two ratios, coupled with an absolutely first-class gear change—it is both light and has a very short travel—lead one to imagine that the. Coventry Eagle is a pukka roadracing machine. Incidentally, the gear box was commendably quiet, while the clutch was light and smooth in action, although inclined to drag slightly when a gear was engaged with the machine stationary. When the engine was pulling on light throttle the exhaust was reasonably quiet, but on full load it produced rather too conspicuous sporting note. This was particularly noticeable at the upper end of the throttle range. The mean speed of four runs



"It is possible to remove the petrol tank without disturbing the wiring of the instrument panel. Note the concealed-spring rear stand." (Right) "Webb forks and a sturdy cradle frame are two outstanding features of the Coventry Eagle."

in two directions amounted to 78.8mph. Over a smooth surface the Coventry Eagle could easily better 80mph. A curious mishap occurred at the end of the last timed run, when a severe bump caused a spoke in the rear wheel to snap. The loose spoke and nipple forced their way through the rubber band in the well of the wheel and into the

inner tube. At all speeds the steering was just right—neither too heavy nor too light. It is particularly good over rough surfaces. Likewise, the handling on corners is all that can be desired. Both brakes are light to operate, and although quite effective, an improvement in the braking figure would have resulted if the front brake had been a trifle more powerful. However, their smoothness in operation, coupled with the machine's admirable steering qualities, gave the rider every confidence when riding over greasy surfaces. The single-port, high-level exhaust system became unusually hot in warm weather, and was liable to burn the rider's trousers—a point which indicates that some form of guard on the pipe is very necessary. In connection with the exhaust system, an interesting point is that the Coventry Eagle is obtainable with a two-port or single-port head (optional), while low-level exhaust pipes can be fitted at no extra charge if specially ordered. Low running costs are apparently a feature of the Coventry Eagle. Owing to the oil-tight nature of the engine, practically no oil was used during the course of the test, while the petrol consumption at a maintained 40mph amounted to 77.2mpg. Altogether a very attractive and speedy machine.

"IN CZECHOSLOVAKIA, new motor cycles may be put on the road tax-free, and their owners receive income-tax concessions."

"95% OF THE 9,202 motor cycles produced in Czechoslovakia in 1936 were of Czechoslovak manufacturer. Jawa were the most popular make."

"VEHICLES IN NEW ZEALAND now have to be issued with a certificate of fitness before they may be taken on the road."

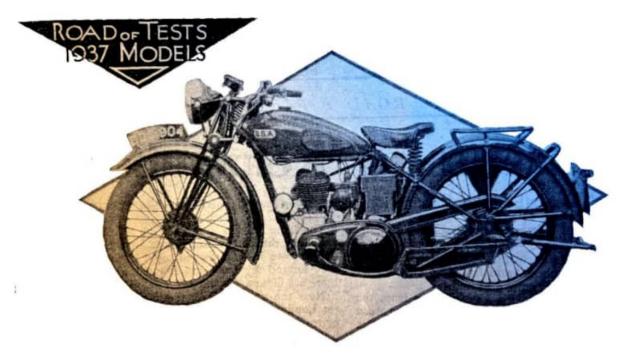
THE BROOKLANDS AUTHORITIES clearly weren't too bothered about attracting paying customers because many race meetings were held on Wednesday afternoons when the vast majority of enthusiasts were busy earning a crust. So there was only a small crown to see Wal Handley, who had retired from racing two years previously, ride into the record books on a BSA M24 Empire Star. BSA wasn't known for its racers but this 497cc ohv iron-engined single, running on alcohol with a 13:1 compression ratio, lapped at 107.6mph to win the Allcomers Handicap and a Brooklands Gold Star. Within weeks BSA launched an all-alloy model based on Handley's race winner: the Gold Star. Over the next 25 years it would shine brightly as a racer, scrambler, trials iron and super sports roadster.



Wal Handley with the tuned Beeza that was the progenitor of the Gold Star.

"THE SUN SHONE on the chestnut blossom in the Avenue. It was a beautiful day. To the boy on the pavement it was more than that—it was THE day. Under his excited and envious gaze his friend appeared from a side gate pushing 'Heart's Desire'. History forces us to record that it was an old and dilapidated 3½hp Minerva with coil ignition, footboards like Little Tich's boots, a frame that stretched from here to there, and handlebars like a horizontal croquet hoop. Suspension was theoretically by leaf spring fork, but in reality by copper wire. The tyres were of 2½ in section with steel studs, and the machine had outside plumbing in the shape of a gigantic hand-operated oil pump bolted to the torpedo tank, which seemed to reach away towards the horizon. Comic we will agree, but to the boy it looked more handsome than any show model. Doing a hundred yards in 'evens' the friend leaped into the saddle and disappeared round the corner. To the scent of the chestnut blossom was added that of pure castor oil—curse of childhood, ambition of adolescence. The boy on the kerb turned his school cap back to front, put on a pair of rubber goggles and for the umpteenth time examined a virgin driving licence. A steady banging in the distance accompanied by the barking of a dog heralded the return of his friend. Final instructions on the twiddling of air and throttle controls and the tankside advance lever; a mental panorama of motor cycle manuals pored over for many weeks, and the sweet agony of anticipation reached its climax. A pounding of feet to which his heart kept time, a frenzied jump and the boy heard 'Heart's Desire' fire, then leap like a live thing. Perhaps it was only half a mile round the block, but that first ride contained a thrill the boy has never quite recaptured in a fairly

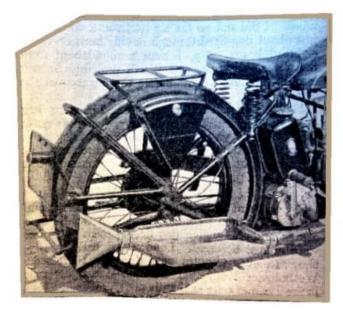
adventurous life. The Year? 1910. The Boy? **Graham Walker**."



"The BSA is a sturdy machine without frills, although of smart appearance."

"OVER THE YEARS the makers of BSA motor cycles have built up a reputation for producing touring machines that give long service with the minimum of attention: The 1937 350cc side-valve model is typical of, the machines that have earned this good name. The machine has obviously been designed from the rider's. point of view. Everything is accessible, and although there is no surplus equipment such items as an adjustable saddle and finger adjustment for the brakes are part of the standard specification. The footrests are not adjustable, but they are well placed relation to the saddle and handlebars. The riding position is comfortable, but for a rider with very long legs the adjustable footrests which can be supplied for an extra charge of 3s 6d would probably be a worth-while investment. Thanks to the 'natural-angle' handlebars the rider's wrists did not tire on a long run, and as the controls are well placed and were smooth in use the machine was at all times a pleasure to handle. Starting from cold was not so certain as one would expect with this type of engine, but this was undoubtedly due to the carburation, which was incorrect at the lower end of the range. Generous flooding and a long swinging kick always caused the engine to fire, but sometimes it stalled after turning over a few times. However, when the engine was warm, starting was almost effortless. The slow-running was also good, except that at very low engine speeds there was a tendency for the engine to spit back and stop. On the road, all traces of this mixture weakness disappeared and the machine was as smooth and sweet at low speeds in top gear as could be desired. At 12mph with the ignition retarded there was no trace of snatch, and the model would accelerate smoothly array from this speed. At speeds above 20mph the ignition control could be disregarded so far as

smoothness was concerned, although when running on No 1 petrol it was found advisable to use the ignition control when driving the machine hard, to avoid pinking. With an ethylised fuel this tendency disappeared altogether, and it was difficult to make the engine pink. The BSA proved very suitable for riding in traffic and for town work generally. It has excellent acceleration and the well-chosen gear ratios enable this to be used to the full. In second gear (12.4 to 1), which was usually employed for accelerating after traffic stops, less than four seconds were required to accelerate from 13 to 30mph. and in third gear (8.1 to 1) the time taken was 6\sec. Even in top gear (6.2 to 1) only 91/2 sec seconds were required. The machine is equally satisfactory on the open road. It was happiest when cruising at 40mph or just over, and whether ridden solo or with a pillion passenger it would run at this speed for long periods without tiring. In top gear the model has a good turn of speed, and the speedometer needle could be pushed round to near the 60mph mark with the rider sitting normally in the saddle. With the rider lying dawn, but fully clothed in heavy coat and waders, the BSA registered a mean timed speed of 62.5mph over a quarter-mile. In the other gears the maximum speeds were: third, 51mph; second, 39mph; bottom (18.2 to 1), 28mph. Accelerating from 20 to 50mph in top gear took less than 14 seconds. In third gear the time taken was somewhat longer. This was due to the fact that the engine had passed its peak well before 50mph was reached, although the actual maximum in this gear was just over 50mph. A better idea of the machine's capabilities as regards acceleration will be gained when it is mentioned that a speed of 57mph was attained in a quarter of a mile from a standing start—a very good figure for a machine with a maximum of a little over 60mph. When obtaining this speed figure, 'racing' gear changes were made, ie, the throttle was left open and the gear changed as the engine peaked. It says much for the gear box that although several runs were made, no change was missed, and the gears





"A large and well-proportioned silencer effectively quietens the exhaust note of the BSA.

The half-gallon oil-tank is a practical feature." (Right) "All the moving parts of the engine are neatly enclosed and there are only two external oil pipes."

engaged cleanly on every occasion. In normal use the clutch was smooth and light, and at all times free from drag. On one or two occasions the gear lever would 'hang' in second gear, but this occurred only when the machine was stationary, and could be overcome by rocking the machine. So much for the performance of the engine. The steering and road-holding are beyond criticism. No steering damper is fitted and none was required, even at speed over bad surfaces. On corners the machine inspired confidence and it could be swung into and out of bends without effort. The forks have a smooth and wide range of action, and effectively control the movement of the front wheel. Both brakes were smooth, and sufficiently powerful for the type of machine. From 30mph the BSA could be stopped in 38ft, and at no time during the test did the wheels lock or show any tendency to do so, except when the braking tests were being carried out. Hand- and foot-brake controls are both well placed, and the pedal has ample leverage. At all speeds the exhaust note is pleasantly subdued and is barely perceptible to the rider. Perhaps on this account the mechanical noise appeared rather pronounced, particularly at low speeds. Although no wet weather was experienced during the test, the machine kept very clean. Only a slight seep of oil from the timing case was apparent on the engine. Oil consumption was very low, and petrol consumption worked out at 84mpg at a maintained speed of 40mph."

"THIS YEAR'S ANNUAL CANADIAN speed championship, organised be British Empire Motor Club of Toronto on Wasaga Beach, were the 'best ever'. A fine and representative entry of clubmen from all over Ontario and the United States battled in the sprint and distance races before a record crowd of over 10,000. The weather was perfect for racing and the beach in excellent condition. During the morning, in the timed sprints over a quarter-mile course, all previous Canadian records were broken. Robinson, of Detroit, riding a very special 988cc ohv Harley-Davidson, set up a new record of 106.07mph. North (988cc Harley-Davidson) was second-best with 95.23mph. Miller (490cc Norton) led the Senior class at 92.30mph, and R Sparks, on a 348cc Velocette, the Junior class with 81.07mph. The afternoon programme included a 70-mile race for the Kaye Don Trophy and two 10-mile events, one for experts, the other for standard machines ridden by novices. The opening laps of the 70-mile event caused great excitement. Miller (Norton) and B Sparks (Vincent-HRD) led the field, first one then the other being ahead, but never separated by more than a machine's length. On Lap 10, however, Sparks was forced to retire with a split oil-tank, and from then Miller had the race in his pocket. Carrol (Norton) moved up into second place, closely followed by Fawson, who was also mounted on a Norton. Meanwhile Robinson (750cc Harley-Davidson), the winner of the speed trials, seized his engine, as did Neelands (Rudge) and Venier (Norton). Clutch trouble eliminated McCoy (Rudge) and Davy (Norton), and a broken chain outed R Sparks (Velocette). At the 64-mile mark both Carrol and Fawson ran out of petrol and

this let up Bucknell (Rudge) and Bristol (Norton). Miller romped home 6min 2sec ahead of the second man, Bucknell, to win the Kaye Don Trophy. Miller's average speed was 63.60mph. Third was Timson (Indian) and fourth Shenstone (BSA). In the novice race Timson (744cc Indian), with his big, high-powered machine, had things very much his own way and won easily, though Norris (Triumph), the second man, gave him some competition in the first two laps. The high-spot of the race was the duel between Crouch (Stevens) and Rogers (BSA) for fifth position, with the former eventually coming out in front. The last race, the 10-mile expert event, provided the most thrilling battle of the whole meeting. Venier, Carrol, Miller and Fawson, all on Nortons, thundered round the two-mile course for three laps, all jockeying for a winning position, but no one actually getting a definite lead. On Lap 4, however, Miller drew ahead of the others and finished a good 100 yards in front of the second man, Carrol, to repeat his double victory of 1936. Fawson finished third and Venier was fourth."

AT THE LAST OLYMPIA SHOW, the makers of AJS motor cycles exhibited an attractive racing 346cc ohc model with a specification that must have been the delight of many enthusiasts. It is now announced that this model (37/7) is in production in limited numbers. It is intended for riders with a fair amount of racing experience, and who are capable of maintaining a rather 'super' type of power unit. The specification includes an engine which is almost identical with that used for the AJS TT models, a 4½-gallon fuel tank, straight-through exhaust pipe with detachable megaphone trumpet and racing-type footrests. With the standard racing specification, and including testing at Brooklands, the machine costs £87 5s. Further details are available from the makers, AJS Motor Cycles, Plumstead Road, London, SE18."

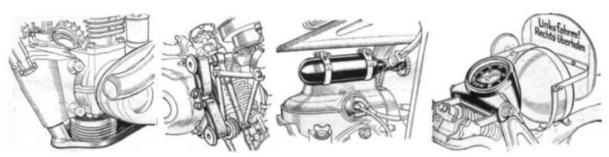
"A CHANGE HAS COME OVER the International Six Days Trial, which, as all know, is to be held this year in Wales. Not long ago the various nations treated the event in a happygo-lucky manner. The trial was widely looked upon as an enjoyable though strenuous holiday. Times have indeed changed. For this year's trial the British teams have already been tested and examined for physical fitness, have raced round Donington, where the final speed test is to be held, and have even been advised as to their diets. In addition, there have, of course, been almost microscopic examinations of the machines and their equipment. Those responsible for the German teams are going to even greater lengths. The riders are being sent to a military camp with the idea of ensuring that each and every man is in the pink of condition. Physical training and tests of man and machine are being carried to lengths hitherto unknown, and the team organisers have even decreed that the men have lessons in English. Some may feel a tinge of regret at the passing of the old happy-go-lucky days, but all will admire the thoroughness with which the task of competing is being tackled. After all, genius, it is said, is only an infinite capacity for taking pains. This year the teams are taking pains; they are determined to give of their best





"The German's have arrived! Three of the German Contingent landing at Southampton last week. The two leading machines are BMWs and the third on the gang plank is a Zündapp. On the extreme right is a popular 'International' figure—the interpreter." (Right) "German Auto Union AG team motorcycles queuing for scrutineering."

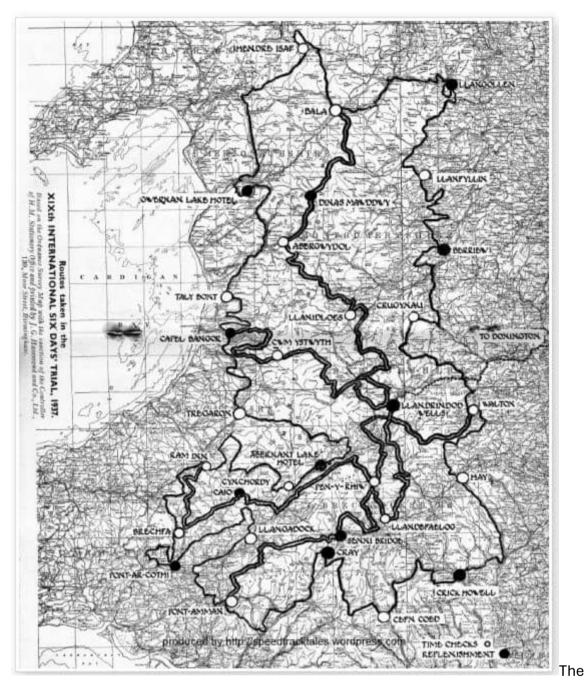
'COINCIDENT WITH THE ARRIVAL of 'Colebank's' description of Great Britain's preparations at Donington for the International there came a letter from a Berlin friend of mine telling me just how Germany is tackling the same problem. Korpsführer Hühnlein, the leader of German motor sport, has decreed that as many German riders as possible may participate, provided they comply with certain conditions. This proviso is necessary on account of the difficulty of bringing money out of Germany. Therefore, so that the money spent is not wasted, the State is going to make sure that all German competitors will have a fair chance of performing creditably. My friend tells me that there will probably be over 70 German competitors, including sixteen army of and men, eleven from the SS (the Hitler bodyguard), 22 of the NSKK (Storm Troopers), as well as 20 or more trade riders. The German Trophy team will be the same as last year, with E Henne, J Stelzer, and L Kraus on BMWs. The Vase teams are uncertain, but it is more than probable that G Meier, J Forstner, and F Linhardt—The three Army officers who won the club team prize last year—will he chosen as one team. Machines for the two Vase teams are as yet undecided, but probably one will consist of 500cc Zündapps and the other will be composed of 175cc DKWs. Every prospective entrant will have to spend eight days in the military camp at Döberitz. There they will have to undergo compulsory practice in conditions similar to those likely to be encountered in Wales. This will be followed by a vigorous course of physical training and gymnastics, and, as if that were not enough, every competitor will have to take English lessons for half an hour each day! Nevertheless, it is a fine example of that thoroughness for which the Germans are famous. In all, the German party, including managers and assistants, will number 140. They will be arriving at Southampton and, escorted by RAC guides, will proceed to Llandrindod Wells via Cheltenham, where the night will be spent. Korpsführer Hühnlein and the Duke of Saxe Coburg and Gothe, with their staff of adjutants, will be staying at Llandrindod Wells throughout the week."



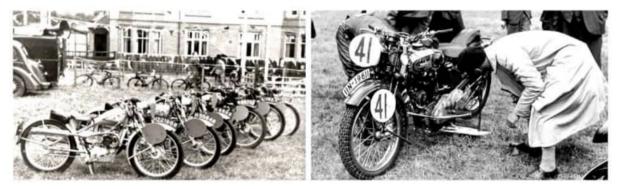
L-R: "Both single- and twin-cylinder DKWs entered by the works—they are easily recognisable by their green petrol tanks—are fitted with compressors, mounted under the crankcase. The exhaust pipe has been cut away to show the compressor." "Rubber bands, which can be quickly slipped on or off as required, play a big part in damping the action of the front forks of C Geffers' (Germany) 241cc Hercules." "On the Zündapp machines the air bottle for tyre inflation, with its long flexible leads, is carried in a special casting on top of the crankcase." "Some of the larger DKW machines have the speedometer mounted in a neat steel pressing on top of the forks. The notice on the back of the number plate is to be seen on all German machines and means, roughly, 'keep to the left, overtake on the right'."

THE GERMANS HAVING hosted the event had perceived it to be both an important sporting event that winning satisfied their self-belief of superiority and also provided worthwhile training for military motorcycle specialists. As a result it sent a huge team with helpers over which was reported by the editor of Motor Cycling in person visiting the docks in Southampton to greet them. The story told was that arriving at the docks they met an immense Policeman his breast a glitter with War medals, The editor asked "Have you seen 140 Germans with Motorcycles" "No Sir" he replied politely, adding, after a contemplative pause "and if I did I'd run like 'ell"





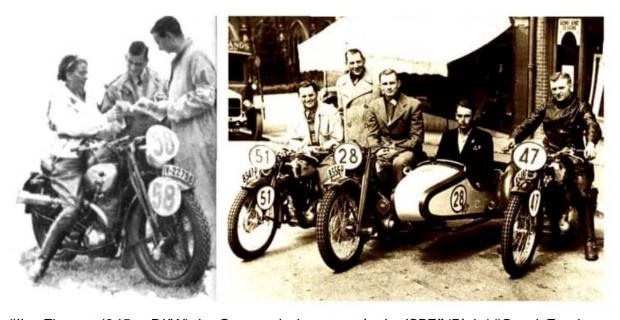
1937 ISDT route took in some of the most scenic parts of Wales.



"Dutch team DKW motorcycles await scrutineering." (Right) "C Geffers' 246cc Hercules, a beautiful bike with much quality detailing being carefully scrutinised at the weigh-in."

## Monday.

A steady downpour without a breath of wind to blow it away greeted at the competitors at 6am on Monday—the start of the 19th International Six Days Trial. Fortunately as the day's run of some 250 miles progressed the clouds lifted and the rain became an intermittent drizzle, and finally the sun condescended to shine. In spite of the discomfort of the weather, conditions were surprisingly easy and caused very little trouble. The chief difficulty lay in maintaining the schedule speed due to the nature of the course, which included miles of narrow lanes. Foreign riders found an added difficulty in the high banks and hedges that prevented them seeing round many of the corners—they are not used to this type of going. In spite of this, few lost marks on time, except for mechanical reasons. On the whole, the roads were reasonably good, although one or two sections had cross-gulleys similar to those of the Black Forest. Several quite steep hills were included, Allt-y-Bady and Dol-y-Wera among them, but they stopped only one or two 98cc and 172cc machines and a few sidecars. At all vantage points along the course—from Llandrindod Wells it ran up to Llangollen via Berriew and returned by way of Dinas Mawddwy and Llanidlowes—large crowds gathered to watch the riders of many different nations pass through. Fred Neil (498cc Matchless) experienced bad luck when his machine refused to start at a control during the day. Eventually he traced the troubles to a faulty HT pick-up—but not before he had lost 28 marks. H Tozer (496cc BSA sc) left the road at a tricky bend near Llandrindod Wells on the way home with the result that he could not think of continuing, while T Barnes (997cc Ariel sc) was compelled to retire at the lunch check with a badly holed crankcase. When the results of the day's run were published they showed that none of the three Trophy teams had lost marks. Likewise, none of the Vase teams were penalised except the Austrian team, whose rider H Stroinigg (248cc Puch) had been forced to give up. Eighteen riders had retired and a similar number had lost marks.



"Ilse Thouret (245cc DKW) the German lady entrant in the ISDT." (Right) "Czech Trophy

team, Antonin Vitvar (247cc Jawa), Franta Juhan with passenger R Protiva (598cc Jawa) and Vaclar Stanislav (247cc Jawa). Behind Vitvar is George Pratchett."

# Tuesday.

On the second day of the trial the Clerk of the Weather played some peculiar pranks, In the first place it did not rain, although the roads were wet in places at 6am for the early numbers. But in the hilly districts—and the route on this day round through some mountainous parts of Wales—extremely low clouds completely blocked out the landscape. Riding became quite difficult at times on account of the mist settling on the competitors' goggles. The inward half of Monday's run was followed in the reverse direction, viz, out through Llanidloes and Dinas Mawddwy as far as Bala, where it branched towards the north, and then back and down to the lunch control at Gwernan Lake Hotel, near Dolgelley. Apart from the mist, the run was comparatively easy, even though it included the ascent of that well-known and lengthy hill, Bwlch-y-Groes. It was in the narrow part at the foot of the hill that Vic Brittain (348cc Norton), of the British trophy team had to do some rapid thinking when rounding a bend. He suddenly came across two German riders sprawled across the road after a slight spill. Quick as lightning Britain slid his model in dirt-track style to a standstill, doing no damage either to himself or to his machine. In the clouds on the upper slopes to the hill it was very interesting to watch the different methods employed by the various riders. HR Taylor (497cc Ariel sc) came up in grand style, but LEC Hall (499cc Rudge sc) came to a stop at the summit with clutch trouble—a locknut had slackened and off, and by the time he



"Where's George? these rows of neatly parked competitors' machines at Tuesday's lunch stop, the Gwernan Lake Hotel, tell their own story."

got it back he had lost so much time that he was forced to retire. F Juhan (598cc sc) came up with his passenger sitting on the pillion seat; close behind him and rapidly overhauling him was HJ Flook (596cc Norton sc). E Barth (98cc DKW) came up very slowly, and near the top proceeded to tack from side to side of the road to ease the load on his little engine. H Klopfer (98cc DKW) amused the spectators by 'romping up' at a very slow speed, and when he gradually overtook JC Verkerke (125cc Eysink) he offered a hand as if to tow him up. The gradient was too much for W Zylaard's baby DKW, and it

seized up near the top. FH Whittle (598cc Panther sc) made a climb in spite of a sidecar that had adopted an affectionate inward list. Most of the British riders, knowing the tiring nature of the hill, climbed with restraint to save their engines. In consequence they were for the most part extremely neat and pleasing to watch. Easily the most outstanding continental machines were the BMWs, whose riders almost without exception, roared up at speed. S Bell (496cc BSA), O Senaburg (490cc DKW), H Major (490cc Norton) and GF Povey (346cc AJS) all made quiet and neat climbs, as did A Colcombe (347cc Ariel). J Stelzer (496cc BMW), of the German Trophy team, treated the gradient with the respect and caution expected of a team man. From the top of Bwlch-y-Groes the route proceeded down the rocky track leading to Lake Vwrnwy, and then proceeded via the Hirnant Pass, which was descended, down to Bala. From here the going through wild country, the beauty of which was frequently lost in the clouds. Sheep which suddenly jumped into the road, caused a great deal of anxiety and in some cases a few spills. Curiously enough, the Welsh sheepdog seem to be equally careless about the correct use of the road, and they caused their fair share of heart beats. At the lunch control at the Gwernan Lake Hotel CS Edden (990cc Matchless sc) retired with a faulty sidecar wheel. The return journey was comparatively simple with more than its proper share of good roads. On the main road section from Rader to Landrindod Wells, G Keitel (490cc DKW) left the model when endeavouring to avoid a sheep and severely bent his headlamp. At the finish of the day's run, he started to remove the lamp only to be told to refit it! At the finish of the run WS Waycott change the tire on the spare wheel. It was also noticed that several Continental machines were rapid losing their rear wheel treads.



"The corners on Bwlch-y-Groes were popular vantage points for spectators in view of the acrobatics of many of the passengers. Here is A Fritsch (730cc BMW sc) of Germany." (Right) "A study in Swiss cornering methods. The subject is E Haller and passenger (497cc Zündapp sc). Note the unusual sidecar motif."

#### Wednesday.

Wednesday had the makings of a perfect day when the first man set off on the run of

247 miles, most of which lay to the west of Landrindod. Later on the sun streamed down with almost tropical intensity, but at the early hour of 6am it was still hidden behind the clouds. Soon after the start T Whitton (498cc AJS) was forced to retire with gearbox trouble. The route wound its way over the middle of the Cambrian Mountains, at one point, reaching a height of 1,400 feet above sea level. This part of the run provided seasoned 'International' drivers with an opportunity of showing their skill at maintaining a high schedule over really bad going. For nearly 25 miles the course went up short but steep hills with many awkwardly placed bends and to add to the riders' troubles they were cruel, fork-bottoming water-courses, or cross-gulleys. During lunch at the picturesque Abernant Lake Hotel one or two riders looked longingly at the water in the lake, a refreshing site in the heat of the sun. That little German rider Klopfer simply could not resist the appeal of a child's-size, paddleboat and proceeded to paddle about it, complete with reversed cap and goggles to the general amusement. Everyone was intensely happy. The Germans kept on expressing their appreciation and not only of the beauty of the Welsh scenery, but also of its variety. So far the day's run had been the most beautiful in the trial. After lunch the course lead to Cynchordy and the Ram Inn, over the southern end of the imposing Cambrian Mountains. Once again, the course was interesting, but not too difficult. Riders were still arriving at the checks with five and sometimes even 10 minutes in hand. In fact, because the surface conditions of the tracks permitted unusually high speed, there was every possibility that thoughtless riders might burst their engines. Actually, trouble had been experienced by more than one rider for this reason...Finally, the course skirted Builth Wells and a slight deviation brought the riders back into Llandrindod Wells for the completion of third day's run—a day of little excitement, but of great scenic beauty.

#### Thursday.

In a way Thursday's run was one of the most exciting of the week. The first three days had been somewhat lacking an interest—the wheels had been turning too smoothly. But on this, the fourth day things began to happen. So far the three Trophy Teams, representing Great Britain, Germany and Czechoslovakia, had been running level with no marks lost, but today A Vitvar (246cc Jawa) of the Czech team retired. He went off the course and covered so many miles when endeavouring to rejoin it that unfortunately he ran out of petrol. T Stewart (346cc Royal Enfield) of the Irish Vase 'B' team and JE Fyma (497cc Ariel) of the Holland 'B' team also also went off the course at the same point and lost marks on time. At the start everyone was sorry to hear that Jackie White (497cc Ariel) was not well enough to continue—the previous evening he had become involved in an argument with a dog on the way into the final check. The resultant spill had a sprained the knee of his already not-too-clever leg. In spite of great pain he had managed to check in. JS Boote (348cc Panther) found it impossible to get his model going and after much pushing he retired. The trouble was due to a broken piston ring

that it worked its way past the top land of the piston into the combustion chamber. At a point in the hills just before the Ram Inn the course struck out afresh from that of the previous day. Several competitors went astray. Some realised their mistake in time, but others picked up fresh markings which led them a long way off the correct route...By this time most of the riders are settled down to a steady speed on the good road sections, tackling the rougher parts with caution. However, nothing could stop some of the visitors from treating the trial as a race, many of them arriving at checks with 15 and more minutes in hand. The lunch check was at Ponct-Ar-Cothi, which is five miles east of Carmarthen on the main road. Here it was easy to see the results of the hammering to which the machines have been subjected. Several sidecar outfits obviously disintegrating under the strain while not a few solos were in trouble. DH Eysink (122cc Eysink) was forced through at this point with a fractured frame. After lunch the course led by devious ways to the control at Llangadock, where Captain G von Wolf (790cc BMW sc) just got in in time after changing a wheel. R Plasckett (247cc SOS) had to give up with gear box trouble. Curiously enough, a similar form of trouble brought about the retirement of another SOS rider, RW Hole, at the very next control. Between Ammanford and Senni Bridge, the course skirted the Black Mountains, climbing at times to close on 1000ft above sea level. In parts the going was rough due to rock outcrops, but little trouble was





"The Dutch 'A' team, winners of the Vase. AP van Hamersveld, G Bakker Schut and J Moejes." (Right) W Schief (242cc NSU), GE Rowley (346cc AJS), C Geffers (241cc Hercules) and J Ashworth (496cc BSA) crossing a narrow bridge on the fourth day."

experienced. Here H Crabtree (246cc New Imperial) had to give up with chain trouble...A torrential downpour of rain between Senni Bridge and the check a Llandefaelog, near Brecon, practically obliterated the route marking at some points. However, only one or two riders went off the course. R Seltsam (493cc Zündapp) skidded on a bend while travelling fairly quickly and came a terrific purler just in front of Len Heath. To Len's surprise Seltsam picked himself up, jumped on his machine, which show surprisingly little signs of damage, and rode off at high velocity. Back at the finish Seltsam was showing friends, his crash hat, the front of which bore a deep impression of his goggles, which were forced into the helmet for at least a quarter of an inch. At Llandrindod 19

riders, including only one Englishman, changed their tyres. J Steher, whose machine is fitted with quickly detachable rims of his own design, amazed everyone by completing the task—including removing and refitting the wheel—in just under two minutes, and he did not appear to be hurrying either! The day's run had resulted in the Czech Trophy team losing marks, and the Vase teams of Ireland 'B' and Holland 'B' also penalised, subject to protest. This left both 'A' and 'B' Vase teams of Great Britain and Germany, and the 'A' teams of Ireland and Holland, without loss of marks. It looked more than likely that Donington would have to decide the winners of the international trophy—a dog-fight between Britain and Germany.

### Friday.

So far the course had been distinctly on the easy side, but there were many rumours concerning the route for this, the fifth day of the trial. The strain, both mental and physical, of the previous four days was beginning to make itself felt so that the news that Friday's run might be the most difficult of the week struck rather a dull note. Hardened Internationalists could look back to 1933 and recall the hammering they endured over this very same route. For the most part the day's run lay in the Black Mountain area of Brecknockshire. The previous day's run to Pont Amman via Senni Bridge was followed in the reverse direction. Although it included two quite stiff climbs—one up to 1000 feet above sea level—the route caused little trouble. However, at this juncture, H Fleischmann (348cc NSU) and JA Hitchcock (349cc Triumph) were forced to give up with engine trouble—the con-rod of the latter's machine was peeping through a hole in the crank case. A more perfect morning could not have been desired. The blue sky was flecked with cotton-wool-like balls of cloud, while the atmosphere was so clear that from the top of the hills the country could be seen for miles around laid out like a patchwork quilt. Just before the lunch check Jack Leslie (499cc Rudge) fell foul of a cross-gully while travelling at speed and punctured a tyre. However, he managed to fit another tube with plenty of time in hand. As was the case with most of the villages en route, a large crowd awaited the riders at Cray, where at the village hall lunch was served.



"A glimpse inside the village hall at Cray, where the lunch check on the fifth day was

held." Right "A German sidecar driver, H Weicke (593cc NSU sc) swoops round a bend at Howey."

Inside the hall there was the usual jolly scene of riders from many different countries fraternising. Len Heath (497cc Ariel), of the British Vase team, came in with a very glum face. His engine was cracking up. By mistake a short, skimpy front mudguard had been fitted, and the mud encountered on the first day's run had been sprayed all over the engine and in particular into the carburettor, whence it had worked its way into the engine, in spite of an air cleaner. Three other riders were also far from pleased. E Barth (98cc DKW), JC Verkerke (122cc Eysink) and H Klopfer (98cc DKW) had lost marks at the Senni Bridge control after missing the route-marking and running off the course. E Haller (497 Zündapp sc) was in trouble with a fractured sidecar chassis, as was W Krabiell (562cc NSU sc). Although the former managed to affect a first-class repair, the latter was compelled to retire in the wilds of Fforest Fawr, on a steep hill near Heol Senni. Incidentally, this section was one of the most beautiful of the week, and one which most competitors were able to appreciate for the bad roads of 1933 had not only been considerably smoothed out but in many cases the surfaces were tarred. It was in this section, when approaching the next check at Cefn Coed, on the outskirts of Merthyr Tydfil, that fate struck a cruel blowout at the British 'A' Vase team. Len Heath's engine decided that it had had enough of Wales' grit and dust and Len had to find other means of transport into Llandrindod. Others, too, were in trouble. JA Hitchcock (349cc Triumph) had some serious fork trouble and retired at the next control at Crickhowell, and P Schähfer (596cc Victoria sc) gave up after a bout of chain trouble...From the control at Hay the route lead out to Walton Road and then turned westward back to Llandrindod following the outgoing route used on the very first day of the trial. With many signs of relief—for this was the last day of the trial proper, Saturday's run to Donington being over main roads—the riders handed in their machines at Llandrindod Wells, where a huge crowd lined the streets to cheer them. Great Britain and Germany still had lost no marks in the Trophy Team contest, while the Vase teams of Great Britain 'A', Germany 'A' and 'B', Ireland 'A' and Holland 'B' were likewise running without loss of marks. Everything, in fact, was set for an exciting finish at Donington.



"The Britain vs Germany race begins. On the right is the smoke from the maroon. Note how No 193, J Stelzer (BMW) has been caught with his hands in the air, adjusting his goggles while the remainder are in the act of starting up and getting under way. The trophy team men (left to right) are Steizer, VN Brittain (Norton), G, Meier (BMW), GE Rowley (AJS), L Krauss (BMW sc) and WS Waycott (Velocette sc)."

## Saturday.

Five ack emma was zero hour for the start of this, the last day of a grand trial. There was a notice of sadness in the air at this hour for the trial was leaving Llandrindod Wells for the last time on the final run to Donington. We had grown to love this famous Welsh watering place, and, judging by the many kindnesses we received, it had also learnt to like us—notwithstanding our early morning starts. In spite of the early hour and a depressing downpour of rain Llandrindod Wells gave the trial a grand send-off. The route lay over main roads the entire way to Donington. Chosen to avoid big towns, it led via Ludlow and Bridgnorth along Watling Street to Tamworth and then through Ashby-de-la-Zouch to Donington Park, where the riders began to arrive in batches soon after 9am. On the way fate struck some last-minute blows. HM Patterson (998cc Harley Davidson sc) was forced to retire, and SA Lewis (499cc Rudge), who up to this point had not lost any marks, retired with serious engine trouble less than two miles from Donington. WN Jordan (346cc New Imperial had a rather bad spill, but was able to continue, and Freddie Neil (498cc Matchless), who had not lost any marks since the beginning of the week, had to retire near Bridgnorth with a broken rocker. After a brief respite, during which they were permitted to change tyres and sparking plugs, the riders in the first batch were led round the well-known 2¼-mile road race circuit. Soon they were lined up on the starting grid, and with the upmost possible dispatch they were sent off on this, the last test. For machines have had a week's hard gruelling this one-hour high-speed test is extremely trying and it was not surprising, therefore, that many failed to cover the necessary number of



"J Forstner (494cc BMW) 85, A Möhrke (494cc BMW) 143, J Moejes (494cc BMW) 122, JC Edward (499cc Rudge) 126, A Jefferies (349cc Triumph) 218 and J Williams (348cc Norton) 64—all members of Vase teams—sweeping round Redgate Corner in the high-speed test at Donington."

laps in the specified time. The schedules varied from 38.28mph for 125cc solos to the 48.48mph required of the 500cc machines. When the first batch went off Frau I Thouret (245cc DKW) was left behind kicking hard at the starter—last year in Germany she had a similar experience. This time the trouble was due to her failing to switch on the ignition—a point that was soon rectified. However, on the last lap a tyre went flat, and by the time she rode in she had lost three marks. Miss Marjorie Cottle had even worse luck—her little 249cc BSA, which had taken it through the week without loss of marks, decided to blow up in the middle of the test. The same thing happened to C Geffers (242cc Hercules)—in his case on the last lap. For the most part the riders wisely rode to keep ahead of the schedule required of them by a small but safe margin. But one or visitors looked upon it as a race with the results that their engines objected and away went their golds. HR Taylor (497cc Ariel sc) put up a grand show in spite of his physical disability—he is minus one leg, and owing to road shocks his left hand had become so numb that he could scarcely use it. Well did he deserve his gold medal. After the third been flagged in the contestants for the Silver Vase rode round the course and then waited on the grid for the starter's signal. It was going to be a grand tussle between the Great Britain "A', German 'A' and 'B', Ireland 'A' and Holland 'A' teams. For this contest, as well as for the Trophy contest, the team able to save the greatest number of seconds on its schedule was to be adjudged the winner. By this time a large crowd had gathered to see the thrilling finish to a week's hard riding. When the maroon fired the two BMWs of the Dutchman, J Moejes, and F Linhardt, rocketed off the mark with R MacGregor (499cc Rudge) hot on the heels. At the end of the first lap McGregor was tailing the leader, Moejes. Next time round, he was in front, while not far behind was Jack Leslie (Rudge), in the middle of a pack of snarling BMWs. Then came the first blow. Edward (Rudge)

blew up on the far side of the course, by the Hairpin. Great Britain was out of the Vase contest. Alan Jefferies (346cc Triumph) was to lose his gold in a similar manner. The issue now lay between the Dutch team, the two German teams and the Irish boys. The last mentioned were putting up a grand fight, but they were somewhat outclassed by the speedy German machines. The Dutchmen were obviously piling up a big lead. The German Army team, on BMWs, found difficulty in negotiating Coppice Corner. Reports came through that both A Möhrke and Jay Forstner came off at this point. At last the riders are flagged in. It looked like an easy win for Holland. The crowd anxiously waited for the results to be announced. It was a long wait. Nearly an hour later it was given out that the German army team had won. A protest was lodged, and it was then found that Moejes, the fastest rider in the Dutch team, had been missed on his 12th lap, so the final result was that the Holland 'A' team won by the handsome margin and nearly 2½ minutes from the German Army team. The German B team of Zumba for third with the Irish team are Gallant fourth. Finally came the most important event of the day, the contest between the Trophy teams of Great Britain and Germany. The British and German sidecar outfits were of the same capacity, but the British, solos—GE Rowley, (AJS) and Vic Brittain (Norton) were 350s as compared with the 500cc solo BMWs of the German team. According to the rules the British solos had to gain on a



"Beaten by the narrow margin of 10seconds—the German Trophy team consisting (left to right) of L Kraus, G Meier and J Stelzer."

schedule based on 18 laps in the hour, while the BMWs had a scheduled based on 19 laps. Put more simply, the BMW solos had to gain roughly 6sec a lap on the two British 350s, assuming the two sidecar men were keeping level. When the maroon went off the

British team jumped ahead as one man. Stelzer (BMW) was left on the line hurriedly adjusting his goggles. Tensely the crowd awaited the first men down the long straight to Starkey's corner. At last a rider could be seen—a clear hundred yards ahead of the field. It was Vic Brittain! written exclamation Behind was grim, determined Lieutenant G Meier close, followed by Seltzer and Rowley. A brief pause and the two sidecars came round, Waycott dogging, Krauss. Then the anxious crowd experienced a few hear-fluttering. Rowley was obviously in trouble with his gear change—could it be a repetition of his luck in 1933, when he lost all his gears except third? It was very nearly so for it afterwards transpired that he had difficulty in changing up. However, he was able to keep going and try and try as Seltzer might he could not better an increase of five seconds a lap on George time. In the meantime, Brittain's effective lead of seven seconds over and above his 6sec advantage on the BMWs in the first two laps put the British team in a secure position. It simply made up for the very slight difference in Kraus' and Waycott's times. At half distance a bare three second separated the two sidecars. At this stage Meier overhauled Brittain, but he was not gaining enough on schedule. Behind behind them Rowley, by dint of superb riding that was equalled only by that of Vic Brittain, was keeping his end up. Comparatively soon—in just over 40 minutes—the British team had accomplished the necessary number of laps. But so had the Germans. Who had won? Anxiously the crowd waited for the result. Yes, we done it! We had won by the extremely narrow margin of 10 seconds. What a terrific climax to a six days trial! Great Britain had once again won the International Trophy, bringing her total number of victories in this unique event up to 10. Throughout the week it had been a sporting struggle under conditions which were trifle easier than usual. Even so, out of 10 teams which started in the vase contest only five reached Donington complete without loss of marks. In this contest, Great Britain was not so fortunate. On the other hand, everyone was delighted to see the Dutch team win by a comfortable margin—a well-deserved and brilliant victory by team of first-rate riders. As was the case with the Trophy contest, the Silver Vase contest developed into a battle royale between two teams.



The boys done good—messrs Rowley, Brittain, Mundy and Walcott with the 595cc Velo combo.

#### Results.

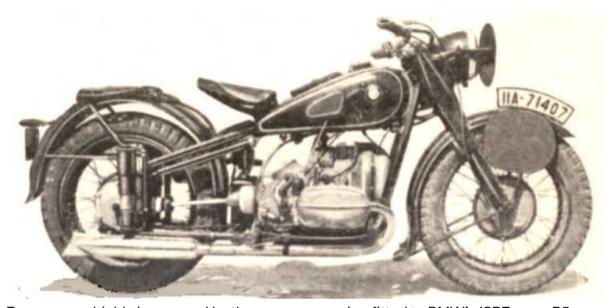
Of 213 starters, 124 riders won gold medals, 22 silver medals and 21 bronze medals. Two riders finished but received no award.International Trophy. Winners—Great Britain: GE Rowley (348cc AJS), V Brittain (348cc Norton), WS Waycott (595cc Velocette sc); total time gained at Donington, 39min 17sec. Runners-up—Germany: J Stelzer (496cc BMW), G Meier (496cc BMW), L Kraus (596cc BMW sc); total time gained at Donington, 39min 7sec. International Vase. Winners—Holland: AP van Hamersveld (494cc BMW); J Moejes (494cc BMW); G Bakker Schut (494cc BMW). Runners-up—Germany: A Möhrke (494cc BMW); J Forstner (494cc BMW); F Linhardt (494cc BMW). JG Shields Trophy (club teams). First—Versuchs-Abteilung-Wünsdorf: A Möhrke (494cc BMW); J Forstner (494cc BMW); F Linhardt (494cc BMW). Second—Leinster MC: AHL Archer (497cc Ariel); RC Yeats (349cc Triumph); S Moran (498cc Matchless). FICM Gold Medals (for Manufacturers' Teams)—Norton: HJ Flook, J Williams, VN Brittain. BMW: G Meier, J Stelzer, L Kraus. Dutch BMW: AP van Hamersveld, L Meojes, C Bakker Schut. Zündapp: R Grenz, G Heimbucher, J von Krolin. NSU/D-Rad: P Oettinger, H Dunz, F Walter.

"WE HEARTILY CONGRATULATE VN Brittain (Norton), GE Rowley (AJS), WS Waycott (Velocette sc) and Waycott's passenger, V Mundy, and the makers of their machines upon the fine achievement. We also congratulate the German trio who came within an

ace of winning, the Dutch BMW team who won the Silver Vase and the German 'B' Vase team who at one time were thought to have won. That this last team, on the sheets being checked, proved to be not first but second was indeed a bitter pill to swallow. Equally, all will extend their sympathy to the Czechoslovakian team and Vitvar, the rider concerned. In common with many others he missed a turning on Thursday, went off the route and then, of all possible misfortunes, ran out of petrol. As a trial the event was easy. By the standard of modern Internationals and having regard to the capabilities of present-day machines it was too easy. The fact that of the 213 starters 124 gained gold medals gives an indication of this. It is, however, difficult to know what the ACU as organisers could have done to obviate it. The difficulties are numerous. For instance, many of the Welsh roads, which six or eight years ago were nothing more than rough cart tracks, are now tarred highways. Secondly, in this country, which has easily the greatest number of vehicles per mile of road, safety demands that the speed schedules are comparatively low. Thirdly, there are obvious practical difficulties in arranging a still larger number of time checks each day. As it was, competitors almost invariably found that they could easily make up anything they lost on a rough section because either before or after it there was a stretch of easy going. Had the checks been more numerous and the weather wet the results might have been very different. What all must remember is that the ACU had not the unlimited facilities or Government assistance as they have in Germany. We stress this because there was a considerable amount of criticism. Our opinion is that having regard to all the circumstances the ACU ran the trial remarkably well. They were handicapped by the event coming so soon after the TT, by the smallness of a much-overworked staff, and by having few officials with experience of modern Internationals. We consider that the Union was set an almost unfair task by those who said the event must be run in Britain—that the right to organise this year's trial must not be foregone —and feel that those concerned in the actual organisation deserve congratulation, not criticism."

"NITOR' HAS LET THE CAT out of the bag—I mean about my trying one of the Trophy team BMWs immediately after the 'International', and also one of the Jawas with their torsion springing. The invitation to ride the BMW was a dual one. The team manager, Herr von Rücker, of the BMW experimental department, asked whether I would like to try the Trophy-type machine, and would I see whether Mr Turner would care to do so, too. And Mr Turner, as you know, is a rival manufacturer—a British manufacturer and the managing director of Triumphs. You might expect that BMWs would not want him even to look at the machine, let alone ride it and thus find out from personal experience exactly what it is like. Encountering folk with such a broad-minded, friendly outlook is pleasant indeed. Needless to say, we both accepted the invitation, and on the Sunday morning we took it in turns to ride the machine on which Meier, after the first few laps, headed the Trophy team race at Donington. Herr Rücker started the machine. It had 'hot' plugs in it—plugs inserted for the speed test—and for a minute or two there was

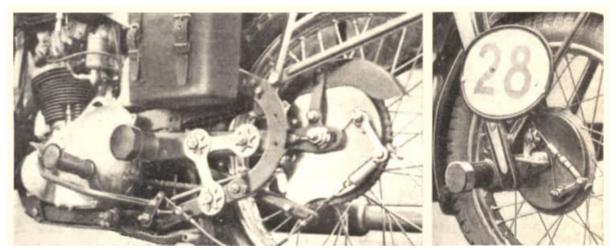
much spitting back and banging. Unfortunately, no roadster plugs were handy. However, Herr Rücker set off up the road. When he came back the engine was firing fairly regularly at low speeds, in spite of the unsuitable plugs. The brakes he warned us about—they could not be adjusted any farther; they were in need of relining, which makes one realise what a masterly show Meier put up at Donington. Off I set on the famous shaft-drive transverse twin. As regards the handling, it was exactly like a standard R5 model, such as can be bought by the public. The riding position, as I have remarked before in connection with



Torrens was highly impressed by the rear suspension fitted to BMW's ISDT-spec R5.

the R5, is typically British, and is exceptionally good. One feels at one with the machine almost immediately, except perhaps for the gear change. On the special Trophy jobs there is a hand change on the off side of the tank coupled with a foot change on the near side. I used the foot change as a rule, but also tried the hand change. Making clean-cut change in an upward direction involved a little care, and once or twice I found an unexpected neutral. The change was light, however, and the clutch sweet. Purposely, I ran over all the manhole covers and potholes I could see. I wanted to test that can't-bebought item, the rear-wheel springing, which, as you know, even Jock West did not have until the last day of TT practice. About the only comment that can be made concerning the rear springing is that one does not realise that it is there! This, I consider, is just about the highest praise one can give a spring frame. Perhaps I had better add to this statement, because some may ask, 'Well, if you don't notice it, what's the good of having a spring frame?' The point is that a good spring frame does its job without making its presence apparent—you are not bounced up and down and you don't find the tail of the machine waggling like a jelly. Instead, the machine handles absolutely normally except that the rear wheel keeps on the ground and rough roads seem smooth. In my case I went over roads which, later, I traversed on a machine that has a rigid frame. Then, and only then, did I realise how rough some of the surfaces actually are. Having a

more than passing interest in spring frames and spring-frame design, I mentally compared the BMW with various other spring frames I have ridden. It struck me that in 'feel' the one that is most similar is that of the TT Norton. This one might expect, for they are similar in their general idea, and both have a total range of movement, counting the upward and downward directions, of approximately 2½ in. What pleased me immensely about the BMW (as it has done with the production R5 model) was the saddle, which has a single tension spring mounted underneath. This is a revelation in comfort, and has no tendency to sway sideways, which is an important factor in saddle design, because one so largely controls a solo with one's legs and thighs. I was not out to try the engine, because I have a fair amount of previous experience with BMW engines. This one was chiefly notable for its special water-excluding devices and its unusual finning of the cylinder barrels arrangement which BMWs have recently patented and were trying out. Roughly speaking, the fins may be said to take the form of triangles with the cylinders as their base, and with the triangles on adjacent fins staggered so that the air blast can do its job. The cylinders looked like light-alloy ones, but I was told that they were cast-iron, cadmium-plated. One thing I must add about the engine was how, as usual with BMWs—in fact, with nearly all multis—I found it propelled the machine much faster than seemed to be the case. Look down at the speedo when 40mph appears to be the speed, do mental gymnastics from kilometres to miles, and one finds the actual speed is about 50! The 'hot' plugs gave a false idea of the behaviour of the engine at low speeds. I gather that before the trial started the maximum of the solos was 95mph with their 6½ to 1 compression ratio.



"In the Jawa spring frame the torsion springing is incorporated into a neat tubular member at the front end of the chainstays." (Right) "Torsion springing as applied to the front forks of the Jawa sidecar outfit."

They might have run them with compression ratios up to 8 to 1, but decided to keep them on the low side in case the course proved gruelling. One final matter before we pass on to the Jawa: the fact that the engine was mounted transversely in the frame was only apparent at very low engine speed; in ordinary touring or fastish road work there

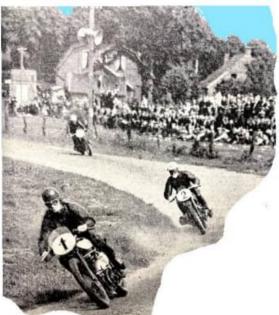
was nothing to tell which way the engine was mounted, and the machine swung round bends to perfection. The Jawa was exceptionally interesting because of the novel nature of the springing. So far as I am aware, torsion springing has never previously been employed. Of course, when one compresses a coil spring all one does is to twist the wire, but that is hardly what one calls 'torsion' springing. The great features of the Jawa system are that there are no bearings to wear or get out of order, and the arrangement ensures exceptional rigidity laterally. The system was applied to all three wheels in the case of the Jawa sidecar outfit and to the rear wheels of the solos. It was being employed experimentally, and I hope that we shall be hearing more of it. During the week nothing went wrong with the springing beyond the fact that a split clip on the sidecar chassis—there to enable the position of the wheel and the strength of the springing to be varied—tended to shift and was periodically loosened, knocked back with a piece of wood and retightened. Perhaps the system will be best understood if we consider for the moment the rear-wheel suspension. In the photograph will be seen two chainstay members running to a tube-shaped cross-member mounted just behind the gear box. This tubular housing contains flat steel plates arranged in the form of a starfish. The plates are fixed to the chain-stay members at their outer ends and clamped rigidly to the frame at the middle. Thus, as the rear wheel hits a bump, the shock is taken by twisting the steel strips. The deflection of the strips for an inch movement at the wheel spindle is, of course, almost infinitesimal."—Torrens



"HELD OVER ONE OF the fastest road-racing circuits in Europe, last Saturday's Dutch TT resulted in Britain gaining one first and three second places. In the 500cc race HL Daniell (Norton) and B Lampinen (Norton) were second and third respectively to Karl Gall, on the BMW, who won at 92.27mph. JH White (Norton) was first in the 350cc event at 85.06mph, followed by FL Frith (Norton), second, EA Mellors (Velocette), third, and ER Thomas (Velocette), fourth. Finally, HG Tyrell Smith (Excelsior) rode a fine race in the 250cc event and finished second as well as breaking the lap record at nearly 86mph The winner was Winkler (DKW). The expected duel between the Norton and BMW riders in the 500 race lasted for only a few laps. The pace over the 101-mile triangular Assen course was colossal and it was not surprising that both Guthrie's and Ley's machines developed engine trouble...during the interval which followed the morning's racing, Eric Fernihough proceeded to do two laps of the course—one a fast one—with his recordbreaking Brough Superior. As the time nears 2.30pm the enthusiastic crowd can hardly restrain its excitement. Everything points to a terrific duel between the Norton riders, Guthrie and HL Daniell, and the BMW stars, Gall and Ley. Tips from the course are freely passed round. Some pundits declare that as it is a fine day the BMWs will score. Others assert that Joe Craig's smile looks a trifle more inscrutable than usual. Certainly his Nortons have 'grown' capacious aluminium oil radiators on the offside between the seat-stay and chain-stay. All is set. The crowd is hushed. The white flag drops...they're

off! Gall and Ley are the first away, but Guthrie and Daniell are hot on their heels. Then— Guthrie leads at the Assen hairpin! Gall, Ley and Daniell are close behind. The grandstand crowd listens to the loudspeakers with bated breath. Silence for the next announcement. Gall overtakes Guthrie half-way to Hooghalen at the far end of the course. The excitement is intense. Guthrie is ahead again at Hooghalen. This is terrific. Then follows the long four-mile straight to the stands. Yes, here they come...two riders close together, followed by a third. It is Karl Gall (BMW)—a length ahead of Guthrie. who, in turn, is about 60 yards ahead of Otto Ley (BMW). Daniell (Norton) comes through next. Then, a long way behind, R Lampinen (Norton), H Roigk (Husqvarna) and T Zwolle (Norton). The next lap sees both BMWs ahead of Guthrie. Is the little Scot playing canny? Daniell comes round again and is out of sight for over half a minute before Lampinen hoves in view. The loudspeakers announce Gall's standing start lap speed— 90.95mph! In the meantime J Schot (Triumph) pushes in to retire; and Noel Pope (Norton) and H Bock (Norton) also retire. The third lap sees Gall (BMW) perceptibly gain on Ley and Guthrie, while Daniell keeps his distance behind this terrific trio. The Austrian rider, H Roigk, overtakes R Lampinen (Norton) and now lies fifth. Gall is averaging the colossal speed of 92mph, while Ley and Guthrie can only be taking a few seconds more per lap judging by the distance which separates them. By the end of the fifth lap Gall is 16 seconds in front of his team-mate, Ley, who, in turn, is 10 seconds ahead of Guthrie. Every other lap Gall breaks the lap record for the course until it stands at 95.00mph. Daniell is riding magnificently by keeping in fourth place on a strange mount over a strange course—he had very little practice on account of missing the boat at Harwich. Then on the sixth lap there is a sensation. Gall comes into the pits to take on petrol! With 18 laps to go this means that the BMWs must apparently make two pit stops compared with the Nortons' one. Gall's total gain on Guthrie of approximately 26 seconds is virtually nullified by his pit stop of 19 seconds. For the time being Ley leads, slightly ahead of the fleet Gall. Guthrie is third, 10 seconds behind. They are averaging 93mph. After these super-stars come Daniell, Lampinen (Norton), T Zwolle (Norton), H. Roigk (Husqvarna), J. Moejes (BMW) and JE Fijina (Ariel). Moejes' machine, incidentally, is fitted with electric lighting, accumulator and coil ignition! On the 10th lap the two BMWs roar through. Next comes Daniell.





"Crasher White (Norton), the winner of the 350 race, heels over before a vast crowd at the bend before the pits. He broke the 350cc lap record at 91.2mph." (Right) "During the great first-lap duel in the 500 race, Guthrie (Norton) and Gall (BMW) passed and repassed. Here is Guthrie ahead of Gall at the Hooghalen bend, with Ley (BMW) close behind."

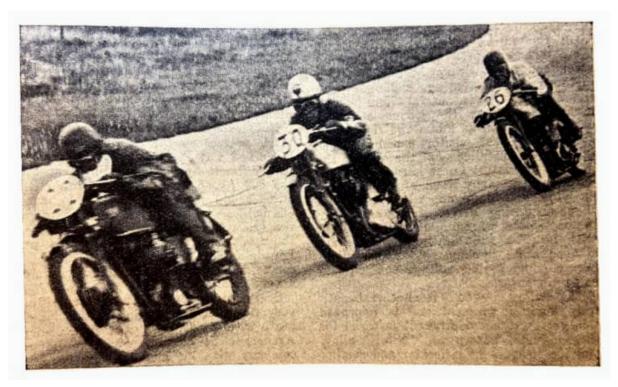
'Waa is Guthrie?' murmurs the crowd in consternation. Soon the answer comes over the loudspeakers. Guthrie has retired and has toured direct to the hotel which is the Norton headquarters at Hooghalen. His retirement puts a rather disappointing aspect on the race, for Daniell is over 2min 4sec behind Gall and obviously cannot hope to overtake him. But next lap round Ley retires. Thus by the 12th lap Gall leads, with Daniell second. Over three minutes now separates them, yet both have lapped the third man, Lampinen (Norton). Next lies H. Roigk (Husqvarna), with T Zwolle (Norton), J Moejes (BMW), W Flikkma (Norton) and H Widenmeyer (BMW) bringing up the rear—eight riders left in the race out of 17 starters! Even so, this number is reduced on the 16th lap when Roigk (Husqvarna) retires with an obscure engine trouble. From now on the race deteriorates into a procession. Some riders are at least four laps behind the leaders. At, last Karl Gall (BMW) comes round to finish. The crowds cheer and wave. Nearly five minutes later Daniell (Norton) is flagged in. More cheers. The German national anthem is played 16 minutes later just as the Finnish rider, Lampinen (Norton) finishes third. A rather dull finish in violent contrast with the terrific opening laps! Next week-end in Switzerland will see the struggle between the leading marques renewed, with the addition of one or two other interesting models. JH White and FL Frith, on Nortons were first and second in the 350cc race, and EA Mellors (Velocette) was third. HG Tyrell Smith (Excelsior) was second to W Winkler (DKW) in the 250cc race."

"FOLLOWING CLOSE ON THE HEELS of the Dutch TT came the Swiss Grand Prix, with which was incorporated the FICM Grand Prix of Europe. This important meeting—the racing was spread over two days—was decided over the 4½-mile Bremgarten circuit on the outskirts of Berne. A huge crowd had come to watch the 500cc race. Rumours were rife. Were Nortons going to turn the tables on the BMWs after the Dutch? And what of the red Guzzis, in the hands of Stanley Woods and Tenni? Then there was that entirely unknown quantity, the Gilera—a four-cylinder supercharged job whose practice times were prodigious. Anything might happen. Gall (BMW) seizes the lead at the start—it is amazing how that job starts after two quick paces. A few minutes later the ear-splitting, snarling roar of the leaders is heard as they approach the stands. Every neck is craned forward to catch a glimpse of the riders as they hurtle by. Gall leads, 50 yards ahead of Guthrie and Freddy Frith. Behind them is the screaming, yowling Gilera. It is a terrific beginning. On the next lap Jimmy is in front of Gall—only a yard or two it is true. Behind them is Freddy Frith, who gains on the other BMW in the hands of Ley. On the third lap both Nortons are in front by a matter of 10 or so yards. Then on the next lap Gall stops at his pits—and retires. But the excitement is not yet over. Aldrighetti, on the Gilera, swoops into third place, and going like a tornado endeavours to close up on the Norton pair. But two laps later he, too, retires. Next into the lists comes that Italian master, Tenni, who, after overtaking Ley, now lies third. But try as he might he cannot make any impression on the Norton pair. In fact, they gradually increase their lead. Stanley Woods makes a spurt and breaks the lap record. It is a splendid but valueless effort, for Frith breaks it again at 92.46mph. Frith eventually finishes second to the brilliant Guthrie, whose winning speed is 88.39mph. J Guthrie and FL Frith, on Nortons, were also first and second respectively in the 350cc race, with ER Thomas (Velocette) third. 0 Tenni (Guzzi) won the 250cc event from N Pagani (Guzzi)."

"AN INNOVATION FOR AN International road-race meeting was the handicap race, which was run after the main events of the Belgian Grand Prix this year, and which proved to be the high-spot of an exciting day. After a year's absence the meeting was again held at the well-known course near Spa, in the south-east of Belgium. Everyone gets away in the massed starts, the 500cc class being sent off last. Immediately the Britishers fill the leading positions in the 500 and 350cc classes. Guthrie and Frith are well ahead of their nearest rivals in the big class, even after one lap, while three British machines in the hands of JH White (Norton), EA Mellors and ER Thomas (Velocettes) hold the first three places in the 350cc class. Not once throughout the Grand Prix do those five machines falter, and at the finish they have enabled the riders to build up such a lead in the two classes that no other riders are able to complete the full number of laps. After a short interval, during which the officials work out the handicaps, the first and second men home in each class wheel out their machines for the two-lap handicap race. Of the eight men and machines four are British. When the handicaps are announced the excitement is intense, for Guthrie concedes 5min 44sec to the limit

man, and the total distance to be covered is under 20 miles. With the anxiety of the big races over, each man flings caution to the winds. As they pass, one by one, through the start and disappear round the bends on the second lap even the most blasé spectators stand up and cheer, for the cornering of the Britishers is heart-stopping. It seems impossible for machines to remain under control at such angles. But no one falls and the fast men take the lead towards the end of the second lap. White catches up with Mellors just before the last turn and Guthrie is only yards behind these two. But it is White who comes out of the bend first and he swoops down to the finish with Mellors and Guthrie on his tail—an all-British victory and another successful day for Britain. J Guthrie (499cc Norton) won the 500cc race at 86.68mph, with FL Frith (Norton) second, and Grizzly (Sarolea) third. In the 350cc class JH White (349cc Norton) won at 79.21mph from EA Mellors (Velocette) and ER Thomas (Velocette). White's speed in the Handicap Race was 86.70mph."

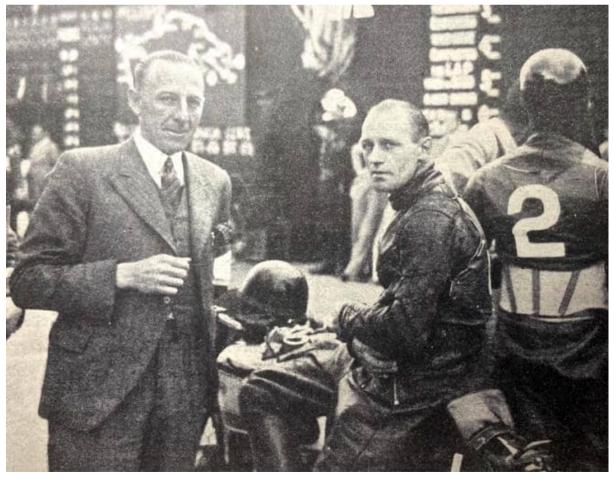
BMW DID NOT COMPETE in the French GP; Ted Mellors rode cammy Velos to victory in the 350 and 500cc races. But at the Ulster GP Jock West won the 500cc class for BMW (as a mark of respect for Jimmy Guthrie Norton did not enter) with Velocette and DKW taking 350 and 250cc honours.



"Another win for Mellors. A glimpse of EA Mellors (Velocette) in the lead at Monza during the 350cc Italian Grand Prix, which he won after an exciting duel with the German rider, Fleischmann (NSU). Mellors' average speed was 89.2mph."

THE GERMAN GRAND PRIX of 1937 will go down to posterity as the most tragic race of all time, for in this race Jimmy Guthrie, one of the most brilliant riders, if not the most brilliant of our time, lost his life. That accident, occurring as it did on the very last lap of

all when he was leading by a comfortable margin, was brought about by something which will probably never be determined. Let it suffice that no other rider was involved. Up to that last tragic moment, Jimmy had been riding the race of his life. Against the most terrific opposition at the start he had worked himself' into the lead. Pitted against him were his rivals in many gallant scraps, Karl Gall and Otto Ley (BMW). Stanley Woods and Tenni were on Guzzis, while there were also two senior DKWs in the hands of Mansfeld and Bodmer. With Jimmy was that other fine Norton rider, Freddy Frith. On the first lap Ley nipped into the lead, followed by Guthrie, Mansfeld and Gall. Behind was Frith, who was having his work cut out to stave off Tenni and Bodmer. Such was the colossal pace that it was not until the fourth lap that Jimmy was able to overhaul Ley. Frith managed to creep into third place in front of the second BMW and the first Guzzi, ridden by Tenni. But Freddy's luck was out. A misfire set in, and after a prolonged struggle he had to retire. Once having overtaken Ley, Guthrie managed by dint of superb riding to increase his lead. Lap after lap he piled it on. Sometimes a second, often more, a lap, until, sitting with a lead of 90 seconds, he entered that fateful 40th lap...So Ley came home, an unexpected winner. And instead of applauding their own hero, an immense and gripping hush came over that vast German crowd. HL Daniell (Norton) beat JH White (Norton) by a machine's length in the 350cc race, both averaging 76.96mph. In the 250cc class E Kluge DKW) won from 0 Tenni and G Sandri (Guzzis)."



"At the start of his last TT. Jimmy Guthrie with Joe Craig on the line before the start of the

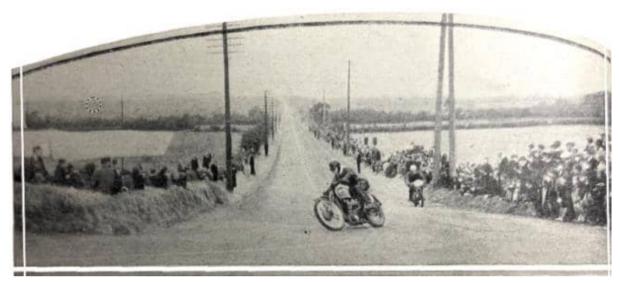
Senior TT. This quiet, unassuming Scot, hero of dozens of international road races, retired on the Mountain on his fifth lap. Two months later he received the final Chequered Flag when leading in the German Grand Prix."



"The two

leaders are HL Daniell and JH White (Nortons) who finished first and second respectively in the 350cc class of the German Grand Prix."

WAS THE 'ULSTER' GOING to regain its title of the fastest road race in Europe? That was the question that seemed most prominent in the mind of Belfast. To the rest of the world the question was more one of what the race would decide as between Jock West on the German BMW and Stanley Woods on the '500' Velocette, for at least the latter model was said to provide the confirmation of its meteoric debut in the hands of Walter Rusk on this course two years ago. The 'works' Nortons were withdrawn as a token to the memory of Jimmy Guthrie, so that the 500cc class, which is always the interest of the event, was, indeed, mainly a match between those two somewhat dark horses. West leapt away from the massed start, but Woods had a comfortable lead at the end of the first lap. But West completed Lap 2 with the deficiency wiped out and as much lead as he had previously had against him. Then the news came in that Stanley's gear box had collapsed. So, too, did the tension! Seldom has an exciting race flopped so badly—and that from no-body's fault, but just as the luck of the game turns. Even a change from showers to sunshine did not help much. And the 'fastest European road race' title was not regained. Neither the 350cc nor 250cc classes provided anything noticeably more exciting. There was a spot of doubt in the early stages of the 350 race as to the outcome of the Mellors-Foster Velocette-AJS duel, but Mellors' Velo soon proved to be the faster proposition by a small margin. The excellent AJS team riding of H Taggart, AR Foster and GE Rowley, however, was a convincing display of high-speed reliability. Ernie Thomas ran away with the 250cc class on a DKW, the sound of which had to be heard to be believed! Jock West's (BMW) winning speed was 91.64mph; J Moore (Norton) was second and H. Taggart (346cc AJS) third. Second and third places in the 350cc event were taken by AR Foster (AJS) and GE Rowley (AJS). The second and third men in the 250cc race were 'Ginger' Wood (Excelsior) and Les Archer (New Imperial)."



"The winner of the 350cc Ulster Grand Prix, EA Mellors (Velocette), rounding Clady Corner, followed by SV Smith on a 249cc Excelsior."

"THE SAXTORP CIRCUIT, near Malmo, is possibly harder on engines than any other, for it has long straights and the surface in parts is apt to disintegrate into muddy 'observed sections' should there be a heavy downpour. Once again the Swedish Grand Prix was held on this nine-mile triangular circuit. In the grandstand sit the Crown Prince of Sweden and Prince Harald of Denmark. The riders on the starting grid anxiously rock their machines—more anxiously than usual, for a torrential downpour during the night is rumoured to have made the muddy sections really bad. The 500cc class is sent off first, followed at minute intervals by the 350 and 250cc classes. In the 350cc class EA Mellors (Velocette) nips into the lead, followed by ER Thomas, Franz Binder, Fergus Anderson and R Loyer—all Velocette mounted. Gradually conditions improve and Mellors and Thomas increase their lead. Thomas, after a rather poor beginning, picks up a lot and pushes up the lap record to 80.65mph. On the 14th lap Mellors makes his pit stop, followed on the next lap by Thomas. Then Thomas begins to slow, and is threatened by the Frenchman Loyer. He is obviously in trouble with his foot-change. Can he last? Gradually the laps are ticked off. Thomas still holds his position, and although nearly a minute and a half behind his team-mate Mellors, he finishes second—having ridden nearly half the race with only third and top gears available! Mellors won a brilliantly ridden race at 77.73mph. S'Ginger' Wood (Excelsior) was third to W Winkler and E Kluge (DKWs) in the 250cc race. The 500cc class placemen were 0 Ley and K Gall (BMWs) and P Taruffi (Gilera).

"THE AER IS BEING PRODUCED by AE Reynolds, the two-stroke repair specialist of Berry Street, Liverpool. It is a 350cc, air-cooled vertical twin, with the engine planned to accommodate a normal transmission system; it can be installed in a conventional type of motor cycle frame. The usual three-port two-stroke layout is followed, using crankcase induction, and the 180° two-throw crankshaft is a built-up assembly running on two ball bearings, with plain bearings outside these and between the central webs for compression-retaining purposes. Twin-cylinder two-stroke engines that employ crankcase compression are necessarily a combination of two practically separate single-cylinder engines fed by a common carburettor and coupled by a common crankshaft, and this applies to the AER engine. Two crank chambers are formed in the crankcase, which is built up from four castings in a very neat way. Deflector-type pistons with two.rings.and fully floating gudgeon pins are used. The Amal carburettor is bolted directly to the inlet port at the back of the cylinder block, and cover plates on the transfer ports facilitate access when decarbonising. Ignition is by magneto, which, together with the oil pump, is driven by a chain alongside the primary chain. In production models these chains will both be enclosed in a cast-aluminium case. It is possible that coil ignition will be fitted in place of the magneto, as it offers advantages in the case of a two-stroke engine, but the layout will not be altered. Complete with flywheel and carburettor the unit weighs 46lb. In general the machine follows orthodox lines, for it has a cradle frame, Webb forks, three-gallon saddle tank, separate oil tank, large brakes, and 3.25-19 (26×3.25in) tyres. A foot-change Burman gear box is fitted. At a later date it will be possible to give more details of performance. At the moment the best carburettor setting has not been reached, but it is claimed that speeds in the neighbourhood of 60mph have been attained, together with excellent slow-running and pulling in top gear and easy starting. Fully equipped, the AER will be sold at £57 15s, and production will begin almost at once.



"Interesting features of the AER vertical twin two-stroke engine include an aluminium cylinder block and a finned crankcase." (Right) "The AER is quite orthodox in its general layout."

"THE MANUFACTURERS' UNION, I see, has taken up with the Chancellor of the Exchequer the fact that Germany is selling machines below cost in various markets overseas. It has asked the Chancellor to consider ways and means of combating the situation. Actually what is happening is this: The German motor cycle manufacturer has to add to the price at which he sells machines at home and pay this addition over to a central fund. The manufacturer then receives back a subsidy that enables him to sell far below the cost of manufacture in markets where he has to meet British competition. In this way, says the Manufacturers' Union, Germany is trying to oust British motor cycles from Holland, Denmark. India, the Far East and South America."

"THE 'SYDNEY RULE' is to give way to traffic on the right. If this rule were adopted we should know where we were at cross-roads where there are no signals or pointsmen, and thus avoid crashes. Mr Hore-Belisha said that such a rule is in many respects undesirable. De your readers think so? If they do, why?

JM Turner, Northampton.

"WE, THE FLEET STREET Despatch Riders, wish to announce that we have read the amazing letter from Mr EHB Boulton, Technical Director, Timber Development Association. We say amazing because it is almost incredible that any-one would try to convince thousands of experienced motor cyclists, who read The Motor Cycle, that wood blocks are anything other than a death-trap surface. We speak with the experience of 35,000 miles per year each, and firmly believe that the majority of motor cyclists sill admit that our experience is far greater than that of the average man...Mr Boulton informs us that the new wood-block surface is quite safe. May we point out to Mr. Boulton that Hyde Park Corner, which has been a danger spot in London for many years, has been re-surfaced with new wood blocks, and the chance of one breaking one's neck at this spot to-day is the same as it ever was...We could fill pages with the names of roads covered with wood blocks that ought to be closed in wet weather to traffic owing to their disgraceful condition. Although our experience is greater than that of the average man, we go out of our way to avoid wood-block roads. We think all motorists will agree that if the Minister of Transport made all local authorities replace wood blocks with tar-macadam, he would not only have taken the greatest step yet to reduce accidents, but also end a great deal of nerve-racking driving. Any of us drivers would be quite willing to give Mr Boulton a demonstration with a car or motor cycle, because it is quite apparent from his letter that he is not a motorist. If we are wrong, and he is a motorist, we should be obliged if he would let on know whether he uses spikes on his tyres, because he is the only person we have heard of who thinks that the most treacherous surface is the safest.

CI Leech, E Bishop, F Long, H Boga (Keystone Press); A Mark (Planet News); GC Moss (London News Agency); Charles Arne, J. Biscardine (Central Press); Leslie J Vane, AC Lane, S Stuart (Associated Press); J Cain (Fox Photos); H. Rhind (Topical Press); J Banks, A Melling, S Healy (Alfieri Press); AW Robson (Wide World Photos)."

"OUR TT REPORT CONTAINS a photo of Tenni cornering at Hillberry in the Senior Race. He very definitely adopts the method of leaning 'machine in, rider out"; and our photographer asserts that Tenni was the fastest racer on this corner, and tilted his Guzzi to an almost incredible angle. I have been yearning for some such scrap of evidence for years. In the days when I was brave enough to corner to the limit, I always found that I could get round a corner faster by this method than by any other. To-day I am too timid to corner really quickly, but on the rare occasions when I slip up and go into an open corner too fast for safety, I always adopt the Tenni method, and—rightly or wrongly consider that it has saved me a nasty spill or two. Am I wrong? If I am right, why was Tenni the sole wholehearted exponent of this system in the Island? Can it be because the layout of his machine equips it with a lower centre of gravity than the standard British racing machine? Or is it that in a race of more than 250 miles riders find it wearisome to keep shifting their weight from side to side in a fashion that opposes the weight to the weight of the machine? When both bus and body are leant 'in' the position of the rider as regards the machine remains the same all the way round. Theorists make the claim that the 'machine in, rider out' method gives better tyre adhesion."—Ixion.

"A DAILY PAPER REPORT of the great Nazi rally at Nuremberg suggests that the German Army now contains a corps of riflemen mounted on motor cycles. It describes how they dashed into action in a sham fight, flung themselves headlong off their machines and cuddled their cheeks down to the rifle butts in a matter of split seconds. Nineteenfourteeners fell a-wondering at this spirited performance. Motor cycling riflemen might well replace Uhlans as a cavalry screen in the first stages of open warfare before the main forces achieved contact; but would they be useful for any other function? Then motor cyclists fell a-wondering what machines were used? The BMW wouldn't particularly relish being flung away like a banana-skin; and if some chap managed to concentrate an indirect machine-gun barrage on the long line of discarded motor bikes..."—Ixion.

IN THE PEAK MONTH OF July 15,286 motorcycles were registered in Germany. In line with the under-200cc roadtax exemption, 77% of them were lightweights.

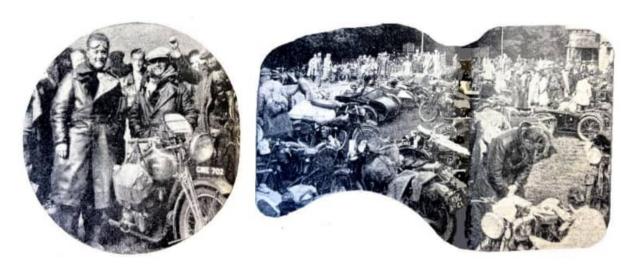
MOTORING DEFENDANT in the Highgate police court: "The car had a certain momentum. You see, I had come from Willesden."

MORE THAN 400 former Royal Engineers dispatch riders and friends attended their seventh annual reunion. As usual there was a 'silent toast' to the fallen..

THE MINISTRY OF LABOUR warned the ACU that foreign speedway riders would no longer be allowed unless they were "essential to the continuance of a track".

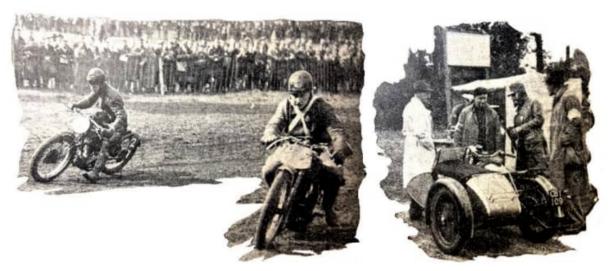
"IT IS A FAR CRY from Barnet to Lilleshall—so far, that in all probability most motor cyclists have forgotten all about the first National Rally that was held. The event has grown since those days five years ago, and there is no reason why, with careful handling,

it should not go from strength to strength and become one of the most important road events in the country. This year the ACU has had a lot on its plate, the 'International' following the TT so closely that not very much time was left in which to organise the Rally. Nevertheless, the Union made an excellent job of it, and at Lilleshall Hall last Saturday there was little, if anything, about the organisation that could he criticised. Of course, the ACU cannot do everything. They cannot, for instance, organise the weather; but, even if they could, they could scarcely make a worse job of it than those at present in charge (is it the BBC?) did on this occasion. All you who are of the opinion that the night should be spent in bed were probably awakened during Saturday night by the sound of rain lashing your window panes. Did it occur to you that some-where out in that torrent were some hundreds of motor cyclists, most of whom were trying to find the longest route from their homes to Lilleshall? It was a freakish night, and most of the riders got soaked time and time again. Some of them had just one long soaking, but there was, it was said, one man who rode more than 700 miles and never saw a drop of rain.



For the most part, however, the riders arrived at their destination with sodden clothing and tales of crawling through mist and rain, which made it more than difficult for them to attain anything like the maximum average speed of 30mph. There were other misfortunes to be faced besides the rain. Punctures, for instance. One young lady had four of them, together with clutch and control cable trouble. You would never have guessed it had you seen her arrive, because she looked as though she had just stepped from a beauty parlour. Mind you, she was complaining that all the parts you couldn't see were dyed blue from her soaked riding costume, but that is another story. It really is amazing what some people will try to do on a motor cycle. Take the case of R0 Ware (AJS). About a fortnight ago he bought his ancient machine for the princely sum of 25 shillings, and, apart from the fact that all his front hub bearings went, everything was all right, and he managed to put in 206 miles. Then there were the two heroes who covered the prodigious distance of 811 miles between 8 o'clock on Saturday morning and 11 o'clock the- next day. They were F Leeke (Ariel) and E Watkinson (Triumph). Leeke

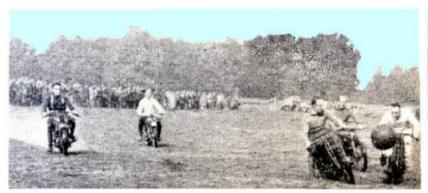
carried a pillion passenger but Watkinson travelled solo. The latter took the father and mother of tumbles when he had covered only 40 miles, but he straightened himself out and carried on. This wasn't the end of his troubles, for at 400 miles or thereabouts his front brake drum split and tore itself away as the result of his crowding on all possible stopping power, under the impression that a sharp bend was a cul-de-sac. Incidentally, it was the first time these two riders had taken part in a rally, which makes one think that when they have had a little practice they should be fairly good! At the other end of the scale we had Allan Jefferies on the new 'Speed Twin' Triumph. He interspersed his rally effort with a little racing at Donington, a visit to Belle Vue at Manchester, and a night in bed at home! As the morning advanced the official parking place filled up, and the variety of machines was wonderful. There was an old Ner-a-car, an ABC in remark-ably good condition—what memories it stirred!—and a Levis minted in 1927 and looking as good as new. Its owner spent a lot of the night searching for a petrol station and a good part of the day having his spectacles mended. Next door to this venerable two-stroke was a lordly BMW. There was another Levis with a spring frame, a decidedly neat affair, rather like the Norton and, presumably, acting on a similar principle. Its owner was missing, so complete details are not, unfortunately, forthcoming, but it appeared to have hand dampers for checking the spring movement. Well, there they were, grouped in a mighty mass in separate



"CV Page and JSA Humphries competing in the up-to-350cc solo grass-track event. (Right) A competitor in the mileage competition checks in."

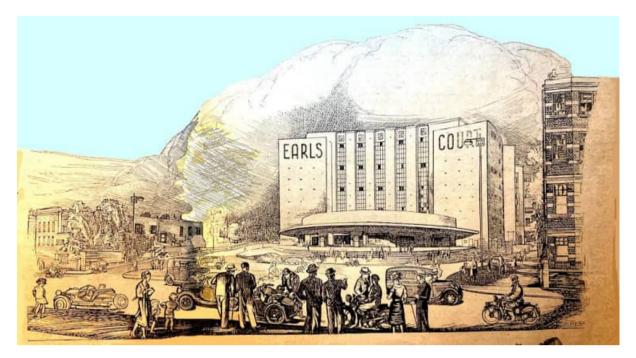
divisions according to the mileage covered. They made a grand array and spoke wonders for the enthusiasm which this sport of ours excites. Big machines, little machines, solos, sidecars, three-wheelers, smart ones and shabby ones, machines that were loved and machines that were cursed; but all were machines that had provided their riders with adventure. At Lilleshall there was welcome food and even more welcome warmth, and, hard though the tasks of some had been, and bitter the luck—one man arrived two minutes late after having ridden 700 miles—grumbles were

few and far between. The ACU did its task well, and it was not their fault that flood and mist had to be faced. Let the Rally go on. The support is there, and a venue such as Lilleshall, where there are things to do on arrival, is ideal. A display of motor cycle football by the Chester Motor Cycle Display team went down very well. The sides were well chosen and evenly matched, and a high degree of skill was shown by all the players. About a minute from the start the 'Blues' scored against the 'Yellows', and this proved to be the only goal of the match. Play was fast all the time, and it was a really interesting 40 minutes. After this came a pause for lunch, and then the Birmingham Club put on its grass-track races. The track was very slippery on account of the rain, but the racing was excellent. An interesting item was a series of match races between Chester and Birmingham, in which riders scored three marks for a win, two for second place, and one for third. There were three solo and two sidecar events; Birmingham finished with 34 points and Chester with 22. In the individual races there was plenty of excitement but few spills. The heats were run off very rapidly, and there was absolutely no waiting between races—except when .a car most wrongfully got on to the course and the organisation was perfect. The final of the race for machines up to 350cc was won after a stern tussle by J Wilkinson (OK Supreme), with D Perks (Velocette) second, and R. Holliday (Velocette) third. The sidecar final was a not-too-easy thing for GL Buck (Ariel sc). He was chased hotly by AH Goddard on a similar outfit, while TH Westwood (THW sc), as the fastest loser in the semi-final, took third place. Altogether, it was a grand afternoon's sport and a fitting finish to as successful a rally as has ever been held.





"The moto-ball match staged by the Chester MC kept the crowd entertained. Note the large ball used in this game." (Right) "Ah, tea tastes good after a long run—especially when it's handed out by dainty femininity!"



"ATTENTION TO DETAIL' might well be the slogan for this year's Show, for a stroll round the various stands at Earls Court reveals comparatively little that is startlingly new, but plenty of improvement to well-tried designs. This fact may be disappointing to those who look forward to every Show producing a crop of designs that are really revolutionary, but the genuine prospective owner will be happy in the knowledge that his pet machine is definitely better than it was last year—and in many, many cases, very much better. Of course, there are one or two entirely new designs of exceptional interest, such as the new unit-construction, transverse-twin Brough Superior, the vertical-twin Triumph, and new motorised bicycles; but, generally speaking, manufacturers have concentrated on eliminating any little weaknesses that may have come to light as the result of experience under actual road conditions. Year after year it has to be recorded that machines are improved both as regards performance and appearance, and 1938 is no exception in these respects. Let us take the matter of appearance. First, there is a noticeable tendency towards compactness—frame design has been improved in many cases, and the various components are



"A new cylinder-head casting which carries the redesigned engine and valve gear is an immediately noticeable feature of the 1938 500cc Red Hunter Ariel. The moulded rubber sheath over the clutch-operating lever and the clean exterior of the gear box will

also be noted." (Right) "In addition to a tuned engine, the the attractive Silver Streak AJS has most of the cycle parts chromium plated."

neatly housed without ugly spaces between them, yet there is even better accessibility. Secondly, attention has been given to silencing systems, so that exhaust pipes and silencers tend to merge into the general lines of the machines. Thirdly, machines are 'cleaner' than ever before—ugly protuberances on the frames and engines have been removed, and more and more models feature total enclosure of the working parts. Lastly, many fuel tanks have been improved both in shape and finish, with a welcome tendency towards 'quieter' colour schemes. In the matter of engine design, attention has been directed towards obtaining even greater power output, combined with quiet running and long life of the moving parts. Hence we find that in several instances the cam gear has been completely redesigned, while larger bearings are fitted throughout. Totally enclosed and lubricated valve gear is almost universal on overhead-valve engines for 1938, and the system is equally popular in the case of side-valve engines, some of which have the valve chest so designed that heat is not transferred from the cylinder to the valves. Lubrication systems have also received attention. The object has been to increase the amount of oil in circulation and to provide adequate lubrication of all moving parts. Thus, many overhead-valve engines have a forced feed to every important bearing surface. Yet, in spite of this, there should be no



"That a side-valve machine can be quite as handsome as an ohv model is provided by the 600cc side-valve Triumph." (Right) "So compact is the new 497cc Triumph vertical-twin engine that it is comfortably housed in the normal frame. The total valve enclosure and general accessibility can be seen from this near-side view."

trouble with leakages at undesirable points, for crankcases and cylinder heads have been suitably redesigned and special jointing washers employed where necessary. The single-cylinder ohv engine is still the most popular numerically, and it has received additional support from the high-camshaft type, which is to be found fitted to several 1938 models. One range of high-camshaft engines shown have chain-driven camshafts with chain tensioners and dampers—an interesting and original arrangement for a push-rod type of engine. Transmission systems have not been appreciably altered from last year. Chain drive still maintains its popularity, although there are outstanding examples—both British and foreign—of unit-construction. Total enclosure of the

primary chain is almost universal, except in the case of the least expensive machines, and better guarding of the rear chain is another noticeable feature.

Four-speed gears are more popular than ever, and in the majority of cases have foot-operated changes. In the past some foot changes have not been too easy to operate—mainly owing to excessive travel and faulty positioning of the lever—so it is good to see that these small but important points have been given attention by certain manufacturers. Clutches have also been improved. Greater frictional area has been





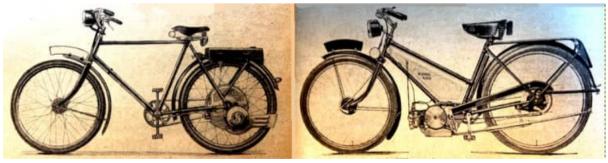
"Unit construction is employed in the 125cc Villiers fitted to this lightweight James. The engine is of the deflectorless piston type and the primary drive is by a non-adjustable chain." (Right) "Straightforward sturdy design is a feature of the well-equipped 125cc Carlton."

provided in certain cases to cope with increased power output, and there is a tendency towards total enclosure of the push-rod mechanism. Brake sizes have not been appreciably increased, but improvements have been made as regards the positioning and adjustment of pedals, the anchor plates and, in several instances, the lightness of operation. Silencing has obviously been very carefully studied, and even a casual glance round the exhibits will reveal a variety of new silencer arrangements. At one time there seemed a hope that this would be a 'spring frame' show, following the publicity of the TT and the almost constant demand of readers for machines of this type, but hopes have not been realised. All the same, there are one or two new designs on view at Earls Court which are well worth close inspection. In addition to machines being more pleasant to ride in 1938, they will also be much cleaner. Mudguards are even more effective and the use of engine shields is spreading to models outside the 'utility' class. Finally, there are the many so-called 'minor' improvements, which very often are extremely important 'rider's points'. For instance, the almost universal adoption of voltage-control lighting systems, improved controls, carefully selected tyre sizes, rubber-mounted handlebars, illuminated speedometers, new riding positions, and a host of other details that will reward the Show visitor who has 'eyes to see'. The outstanding attraction. on the AJS stand is undoubtedly the new range of extremely smart 'Silver Streak'



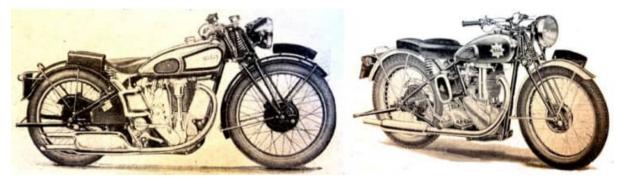
"Plunger-type rear springing and a new rolling stand are fitted to the SS100 Brough Superior, which is guaranteed to lap Brooklands at over 100mph solo." (Right) "The 1,000cc twin-cylinder Vincent-HRS, with spring frame, is a true connoisseur's mount. It remains practically unaltered for 1938."

models. They are super-sports machines available in 250cc, 350cc and 500cc, with specially tuned ohv single-port engines. In appearance they are particularly striking, for all the important cycle parts except the frame are chromium plated. The other popular AJS models from 250-990cc are also shown in improved form. All the ohv models have fully enclosed valve gear. Features common to the whole range include dry-sump lubrication, oil-bath primary chain cases, and Burman four-speed gear boxes. Every model is fitted with foot gear-change except the 990cc. There are eight basic models to be seen on the **Ariel** stand, ranging from the famous 1,000cc Square Four to the 248cc standard ohv de luxe model. As last year, the single-cylinder range consists of three ohv de luxe models of 250, 350 and 500cc, with a corresponding range of Red Hunters. The latter are also available in full competition trim. Then there is the popular 598cc sidevalve single, which now has a slightly modified cam gear, and is said to provide an even better performance. All the ohv single-cylinder engines have redesigned cylinder heads in which the valve gear is entirely enclosed in two aluminium boxes. This, it is claimed, eliminates distortion, as localised heat in one box cannot affect the other. Oil is fed directly to the rocker gear, whence it drains



"In this novel design an ordinary bicycle is converted to a 60cc motorised unit merely by fitting the Saxonette rear wheel and petrol tank-cum-carrier. The engine is a two-stroke with a 17 to 1 gear." (Right) "A special 98cc Villiers engine is fitted to the new Raynal Auto, which is a very simple form of motorised bicycle with a clutch and spring forks."

back into the timing gear via the push-rod tubes. Four types of shaftdriven **BMW** machine are to be seen. A newcomer to England is the Model R20, which has a 190cc ohv single-cylinder engine mounted transversely in a duplex-cradle frame of sturdy proportions. The engine and gear box form a particularly attractive unit. Shaft drive is, of course, employed. The valve gear is enclosed under a one-piece aluminium cover, while the German Amal carburettor is fitted with an air cleaner. A positive foot gear-change is fitted on the left side of the machine. Several examples of the popular R5 494cc ohv transverse-twin are to be seen. These models are very similar to the R6, which has a 600cc side-valve engine. Detail improvements include a small shield over the foot gear-change and specially finished wheel rims. The well-known telescopic forks have larger and better-protected bearing surfaces, and both models have an air-cleaner, which is cast integrally with the top of the gear box. The Model R17, which has a 750cc ohv engine mounted in a pressed-steel frame. It now has telescopic forks. Undoubtedly the highlight of the large **BSA** display is the new Gold Star, which is based on the machine that performed so



"For 1938 that Manx Grand Prix favourite, the 348cc International Norton, is available with a spring-frame at £15 extra." (Right) "Obtaining its name from the model that recently lapped Brooklands at over 107mph, the 500cc Gold Star BSA has a new engine. The push-rod tower is part of the light-alloy cylinder head and barrel."

well at Brooklands recently in the hands of WL Handley. It is a 500cc machine and is obtainable in three forms—as a fast touring mount, for competition work, or for track riding. Although at first glance the Gold Star is similar to the other ohv models in the range, it differs in many respects, particularly as regards the engine. For instance, the push-rod tower is cast integrally with the cylinder head and barrel, with a gasket between the two units. The 496cc engine has an alloy cylinder head with inserted valve seats, and an alloy barrel with a steel liner. The track-racing model has a high-compression piston, double float chambers to the racing carburettor and a lever-controlled throttle. There are 15 other models in the range, of which nine have ohv engines. Of these, one is a 750cc V-twin. A new feature on the M-range, which includes 500cc and 600cc side-valve singles, 500cc Empire and Gold Star models, and the 500cc 'Sports, is a quickly detachable rear wheel. One of the most outstanding machines in the Earls Court Exhibition is to be found on the **Brough Superior** stand. It has a 990cc 50° twin-cylinder engine set transversely in a special loop frame which incorporates plunger-type rear springing. A four-speed



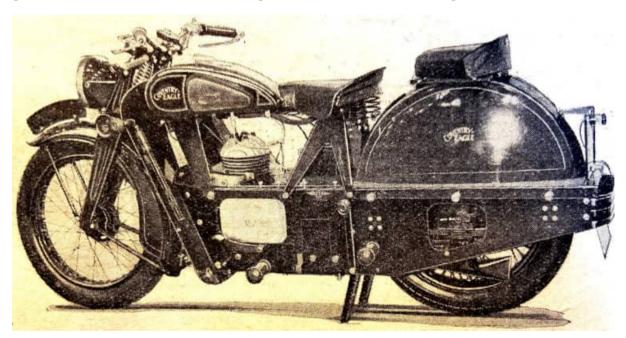
"For the first time the 190cc ohv BMW is being shown in this country. The engine has totally enclosed valve gear and is in unit with the three-speed foot-controlled gear box. Shaft drive is employed." (Right) "The 584cc twin-cylinder side-valve Douglas has detachable cylinder heads. Transmission is through a four-speed gear box."

synchromesh gear box with a single-plate flywheel clutch is built in unit with the engine; transmission to the rear wheel is by chain from a bevel-driven cross-shaft behind the gear box. The rear springing is extremely simple, and a point to examine is the looped member which passes over the back of the rear mudguard to increase lateral rigidity. Rear-wheel springing is fitted to all the Brough Superior models except the side-valve SS80. A lightweight which is worth examining were it only for its very complete equipment is the 125cc three-speed Carlton. It is fitted with the popular 125cc twostroke Villiers engine-gear unit, and this is accommodated in a neat frame which gives an unusually low riding position. Lighting is supplied from the Villiers flywheel-magneto. Sturdy legshields are provided, and other desirable features include a central spring-up stand and a carrier. The tyres fitted are 2.375-19. A fuel tank holding two gallons is another excellent feature of an exceptionally well-equipped lightweight. There are 11 Coventry Eagle models on show. The 1938 range falls into four groups —the fourstroke 'Flying' series, the Pullman, the Silent Superbs, and the little Cadet. This newcomer has a 125cc Villiers two-stroke engine-gear unit, housed in a light tubular frame. A neat saddle tank is mounted on the top tube, and a unique exhaust system is employed in which one pipe is carried across the frame and links up with



""There are no exposed moving parts on the engine of the new 500cc Royal Enfield Bullet, and the push-rods are enclosed in the cylinder and cylinder head castings. The whole power unit is exceptionally compact and robust." (Right) "Rear springing is fitted as standard to all OEC models. This machine is the 498cc Commander" [in this case equipped with optional duplex steering—Ed.]

the other to a common silencer. The Silent Superbs have been considerably improved. There are six models, all with two-stroke engines and pressed-steel frames. New tanks with rounded corners and domed tops are fitted. The all-enclosed Pullman model proved as big an attraction as ever. The enclosure of the working parts is extended to the leaf-type rear-wheel springing and most of the rear wheel is also covered in. The engine is a 250cc Villiers, and it works in conjunction with a four-speed gear box with foot change. Equipment for rider and passenger is standard, as are legshields and and an ingenious hand-operated central stand. Access to the chains and engine is obtained through detachable plates in the pressed-steel frame." Douglas machines are making a welcome return to the Show. Douglas had been on the point of collapse in 1936 when it was snapped up by British Aircraft Company which used its facilities to produce aero engines under the less-than-imaginative Aero Engines banner. Existing stocks of the 500 and 600 twins had been assembled and sold exclusively through Pride & Clarke of Stockwell, South London.—Ed] There are two models, a 150cc unit-construction twostroke and a 600cc horizontally-opposed four-stroke twin. The 150cc model is entirely new. Engine and gear box are of Douglas manufacture and are built in one unit. The engine has twin inlet ports and unusual piston design, and the massively finned cylinder gives the machine the appearance of a 250. For the lower half of the engine and the gear box shell only two aluminium castings are used, while the primary and dynamo chains are enclosed in a domed aluminium case. The primary chain has an automatic tensioning device. The gear box has three speeds and the cork clutch is mounted on the gear box. Other details include a large-diameter rear brake, 2½-gallon saddle



"Magnificent weather protection is one of the big aims in the Coventry Eagle Pullman model, which has rear-wheel springing."

tank and adjustable footrests. The 600cc side-valve flat-twin follows normal Douglas practice. It has an improved crankshaft—both in material and design—and transmission

is by chain through the usual Douglas flywheel clutch and a four-speed gear box. Equipment includes a BTH dynamo and Miller lamps. [ Utility, touring, sporting and racing models all have their place in the 1938 Excelsior programme. The machines most likely to catch the eye are the Manxman models. These have the robust ohc engines of Excelsior design and manufacture which have a fine string of racing successes to their credit. There are 250, 350 and 500cc models and a 500cc Manxman Special which has a specially tuned engine. The two 500cc models have been fitted with a decompressor. Two genuine racing models of 248 and 349cc complete the Manxman range. For the utility rider there is a serviceable range of two-stroke models ranging from 125 to 250cc. All are fitted with petroil-lubricated Villiers engines, and have Burman three-speed gear boxes. Then there is a new motorised bicycle known as the Autobyk and incorporates a 98cc Villiers engine in unit with a two-plate clutch. Two sturdy ohv models of 250 and 350cc, the Norseman and the Warrior complete the range. These have such desirable features as oil-bath primary chain cases and four-speed footcontrolled gear boxes. Francis Barnett have decided to concentrate on two-stroke models. Pride of place is given to the two 249cc Cruiser models—one has a deflectorless piston engine and flywheel ignition, and the other a normal type of twostroke engine and coil ignition. Both models have a new and imposing 3gal petrol tank, which blends with the practically complete system of enclosure of the engine, gear box and transmission. Deeply valanced mudguards and effective legshields complete the equipment. There are also two 249cc Seagulls and two 148cc Plovers. Six wellequipped



"Among the features of the 250cc Sports 70 OK Supreme is a specially tuned JAP engine. The clutch mechanism is enclosed." (Right) "Two points of special interest in the 249cc Francis-Barnett Seagull are the compact nature of the design and the unusual frame construction. The engine is a long-stroke Villiers."

two-strokes are to be seen on the **James** stand, all wth Villiers engines. With the exception of the 249cc J8 long-stroke machine with automatic lubrication, all the models rely on petroil lubrication. They also all have flywheel magneto ignition, a three-speed hand-controlled gear box, and a 2¼-gallon fuel tank. In the 249cc capacity there are two types; one has the well-tried long-stroke Villiers engine, and the other the newer type of deflectorless-piston engine. Both have excellent lighting equipment, with Lucas dynamo, a 7in head lamp, voltage control and dimming device. Next comes the 196cc model, which has legshields and similar lighting equipment to that described above.

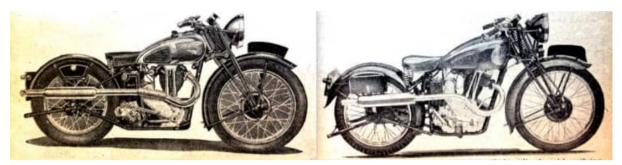
The front brake has been increased in diameter to 5in. Two 148cc machines are shown in utility and de luxe forms. The utility model has a loop type frame, 3.00in-section tyres, 5in brakes and direct lighting. Legshields, Lucas lighting, a separate 6V dynamo and an improved front chain case are included in the de luxe model. The smallest model in the range is fitted with the neat 125cc Villiers engine-gear unit, and now has a larger fuel tank holding 2¼ gallons and a large-capacity cast-aluminium silencer. Unlike the other models, which have tubular front forks, this model has forks of pressed steel. Electric lighting of the direct type is fitted. The **Levis** display comprises six models, ranging from a 247cc two-stroke to the latest 592cc ohv model. For 1938 there is only one two-stroke model, and it combines all the best features of the two types available in last year's programme. It has an improved frame, a larger petrol tank, pressed-steel forks, and a three-speed gear box with foot control. The 247cc single-port engine is also much improved in appearance. The Model B Special now has a two-port 247cc ohv engine with enclosed valve gear. The push-rods now bear directly on to the cam followers, thus obviating tappets. The A Special is similar in most details to the B Special



"The new 98cc Villiers-engined Excelsior Autobyk has many features which will appeal to the utility rider, including electric lighting equipment, a sturdy carrier and large brakes." (Right) "A well made, neat lightweight—the latest 125cc Wolf, which is fitted with the unit-construction deflectorless-piston Villiers engine."

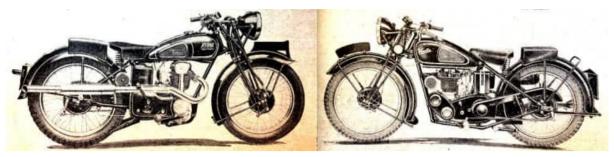
except for a 346cc engine and larger tyres. Both models have voltage control. Everyone visiting the **Matchless** stand is making sure of seeing the new engines that are fitted to the Clubman Super 350 and 500cc models. These engines have many interesting features, chief of which is the total en-closure of the valve gear, including the hairpin valve springs. This has been achieved by an ingenious method of mounting the valve springs. Lubrication of the rocker gear is the same as on the other ohv Matchless models. Oil is fed through ducts in the rocker box to felt pads on the rocker spindles. The new Clubman Supers' cylinder head castings are massively constructed with extremely generous finning, and a breakaway from previous Matchless practice takes the form of enclosure of the upper ends of the push-rods in the head casting. Alterations to the Clubman Models include improved and neater crankcases, spring-up rear stands and flared mudguards with centre ribs. Visitors to the **Norton** stand can see many improvements that have been developed directly from racing practice. The 348 and 490cc ohe 'International' models are, of course, direct descendants of the

successful racing machines, and this year they come into line with the rear-wheel springing, which can he obtained as an extra for £15. On the ohv models total enclosure of the valve springs and valve gear, a development of the method tried out in the Isle of Man, is now standard, and these engines look 'cleaner' than ever with improved crankcases and



"Extremely handsome lines are a feature of the 500cc 'Flying' Coventry Eagle, which is fitted with hairpin valve springs." (Right) "Many detail improvements have been carried out on the latest New Imperials, such as a modified riding position, a new design of foot gear-change and a new and more efficient cylinder head. This model is the 500cc Unit Clubman. Spring frames are available on all machines over 150cc at £4 extra."

inclined push-rods. The valve gear is fully lubricated, and flat-base instead of curved cam-followers are used. Improvements to the side-valve engines include redesigned cylinder castings, enabling the valve springs to be completely enclosed, but avoiding excessive heat in the tappet chest. A complete range of motor cycles in which all the engines have ohv gear and are built in unit with the gear box is to be found on the **New** Imperial stand. The new design of petrol tank is finished in different shades to denote the different series of models. The New Imperial Lion has been replaced by the letters NJ in a large, decorative panel. The sizes available are 150, 250, 350 and 500cc, and all except the smallest model incorporate new features. The range is divided into four groups—the Unit Minor, Standard Unit, De Luxe Unit and Clubman Unit. The Unit Minor group consists of two 146cc models, which differ only in that one is fitted with magneto and the other with coil ignition. In the Standard Unit group are the larger models in the range—250, 350cc and 500cc. These machines have a lower riding position and improved foot gear change. On the OEC stand is to be seen the latest form of duplexsteering which is now fitted to the 350 and 500cc models. The range is based on three types—the 246cc Ensign, the 347cc Cadet and the 498cc Commander. One of the most interesting features of the range is that all models are fitted with rear-wheel springing. The smallest machine has a specially light frame with springing that is similar to the older type of OEC rear-wheel springing. The two larger models, however, have the new type that was introduced early this year. In appearance the 347 and 498cc models are identical, each having an ohv



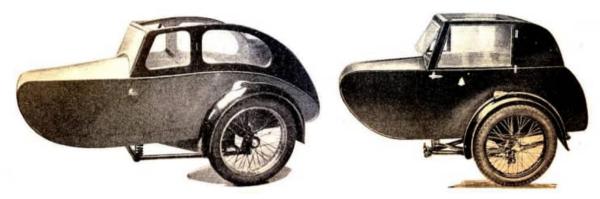
"For 1938 an exceptionally lively Rudge 250 has been produced under the type name 250 Sports." (Right) "A member of a thoroughbred range—the 250cc high-camshaft Velocette. For 138 all Velocettes are being supplied with complete equipment, which includes pillion seat and rests."

Matchless-AJS engine housed in a sturdy cradle frame. There are no fewer than 14 models on the **OK Supreme** stand. The range consists of all types of machines, from the 248cc side-valve Model SV/38 to the 348cc ohc racing Model RCB/38. So far as size is concerned the range is composed of 250, 350 and 500 models with various types of engine. Interest centres round Models AC/38, BC/38 and HC/38 with 248, 348 and 498cc high-camshaft JAP engines of the type which first made its appearance on the OK Supreme stand last year. Five models have standard ohv JAP engines with enclosed valves, while there are two 250s and two 350s with ohc engines. These ohc models are intended primarily for competition work and track racing. Both side-valve models, of 248cc and 498cc respectively, are extremely attractive in appearance and have a very complete specification. The frames of many models have been redesigned to enable the chain-stays, which join up with the front engine plates to be straightened, and so permit a wide range of footrest positions. Pillion footrest brackets are now brazed on to the chain-stays, while an improved prop-stand is fitted to several Models. Other refinements include a folding kick-starter pedal. A neat motorised bicycle which is attracting a great deal of interest is the new 98cc Raynal Auto. It is fitted with a clutch, which is of the multi-plate type running in oil. A frame of the open bicycle type is employed, and the wheels have 26xl¾in tyres and internal-expanding brakes. The engine is a special 98cc Villiers two-stroke of ingenious design. It is petroil-lubricated and has a single-lever carburettor, flywheel magneto, and a neat clutch running in oil. Pedalling gear is fitted. Beneath the engine is a cast-aluminium silencer, shaped like a shallow box, with a small-diameter exit pipe. Head and tail lamps are fitted. The very complete range of motor cycles to be found on the Royal Enfield stand



"A new cylinder head with totally enclosed valves is a feature of the 247cc B Special Levis in its latest form." (Right) "A new type of cylinder head is fitted to the sturdy sidevalve Sunbeam Lion. Note the convenient position of the foot-change in relation to the footrest."

includes models of every size and for every purpose. The lowest-priced machine is the 225cc two-stroke, which has a new petrol tank and a new silencing system. The 250cc side-valve model has re-designed cylinder head finning and a new exhaust port to improve the cooling. Pressed-steel forks are fitted, as on all the smaller machines, and in common with the larger models, except the 1,140cc twin, a foot gear-change is standard. A side-valve of 570cc is now marketed which is equally suitable for solo and sidecar work. It is available with either coil ignition or Magdyno. Several ohy models are, of course, shown and the new 500cc Bullet is probably the most popular. It has been designed as a well-mannered, fast roadster and has the de luxe Royal Enfield specification. This model is available with either a two-valve or four-valve cylinder head, and in the two-valve model the valves and valve gear are completely enclosed. The successful Competition model is shown only as a 500cc—the smaller capacity competition machines are now competition editions of the 250 and 350cc Bullets. The competition machines can be supplied with any one of five sets of gear ratios. Tubular forks are a new feature of the 1,140cc side-valve twin-cylinder model. A foot-operated clutch with Ferobestos plates is standard, but for solo work a hand-controlled clutch with cork inserts is available. A new and much neater absorption-type silencer has been standardised for 1938. Interest centres on the latest addition to the Rudge range—the 250cc Sports model. This model has been planned for those who are likely to take part in sporting club events; it has an ultra-sporting performance. The power unit is of the single-port and two-valve type, and the compression ratio is 7.75 to 1. In a test at Brooklands a model of this type is said to have lapped for five hours at over 76mph. The other models in the range consist of the



"The new Noxal Paramount Saloon, a graceful adult-child two-seater." (Right) "At first sight the Watsonian Oxford Saloon mkight be an adult and child model. Actually it is a most luxurious single-seater."

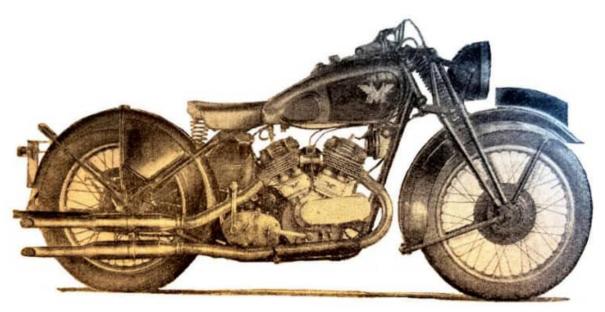
250cc ohv Rapid, and the Special, Sports Special and Ulster, all 500cc ohv models. All these last-mentioned models have four-valve engines. One of the most interesting newcomers to England is the German **Saxonette** two-stroke attachment for bicycles. This unusual power unit made its bow at the Berlin Show this year. It is so designed that it can be fitted to any bicycle with no other alteration than the fitting of a back wheel (in which the power unit is incorporated) and a petrol tank-cum-carrier to the rear mudguard. The little 60cc engine is attached to a chain-stay in a horizontal position and drives the rear wheel through a reduction gear of 17 to 1. A special wheel disc provides fan-type cooling for the engine. A flywheel magneto is fitted, and there is direct electric lighting. There is even a shock-absorber for the transmission, while the specification includes an efficient silencer. **Sunbeams** are especially interesting



L-R: "The new Brough Superior rolling stand. Exceptional neatness and an unusually low centre of gravity are features of the 990cc transverse-twin Brough Superior; the machine has a four-speed synchromesh gear box in unit with the engine. Plunger-type rear springing is standard on all models except the SS80 Special."

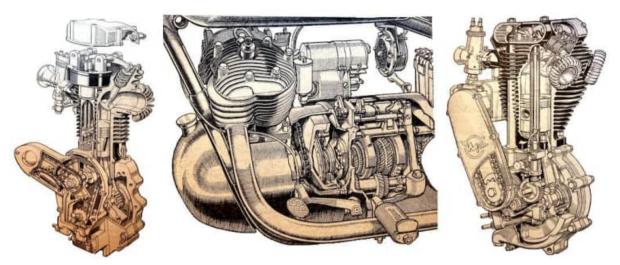
this year in view of the fact that the manufacture of these famous machines has been taken over by the Matchless-AJS concern. No radical alterations have been made to the 10 models in the 1938 range, but the changes that have been made will undoubtedly interest the prospective owner. For instance, the lubrication system of the ohv models has been considerably improved, especially as regards the rocker box, which has been

designed to ensure adequate lubrication without oil leakage. The side-valve models now have detach-able alloy cylinder heads. Head and port design have been carefully modified in the new models, and the result claimed by the makers is a definite increase in power. The two side-valves in the range are of 492 and 598cc capacity, and the other eight ohv models include two 250s, two 350s, three 500s and one 600. The 246cc machine is produced in standard and sports forms, the sports edition having a higher compression ratio. The two 346cc machines follow the 250s closely in specification and, similarly, there is the standard Model 8 and a sporting edition. The three 500s are the Model 9, the most luxurious of the trio; the Light Solo; and the Light Solo Sports. The 596cc ohv model is similar to the Model 9 in general specification. All these models have cradle frames and the differences in specifications relate to such items as tyre sizes, gear ratios, compression ratios and brake diameters. All models have dry-sump lubrication, Lucas Magdyno lighting, primary chain oil-bath (a rear chain oil-bath is an optional extra.), and a Burman four-speed gear box with foot-change. The centre of attraction on the **Triumph** stand is, of course, the new and extremely interesting vertical-twin model. It is of 497cc capacity, with the cylinders cast in one block and set side by side across the frame. Totally enclosed ohy gear driven from high camshafts is an interest-ing feature of the engine, which is fitted in the 500cc Tiger 90 frame. With Tiger 90 equipment the machine weighs no more than the 500cc single. The popular Tiger models of 250, 350cc and 500cc are shown in slightly modified form. They have new twist-grip controls designed to remain at any desired opening, improved oil-bath cases, new rear number plates, and tank-top instrument panels made of Bakelite. The ohv and sv models are also shown, and to these have been added a 249cc ohv model and a 349cc side-valve, both of which conform to the general specification, except that they are fitted with coil ignition in place of Magdyno equipment. All the improvements applicable to the Tigers are incorporated in these standard models; the whole range of



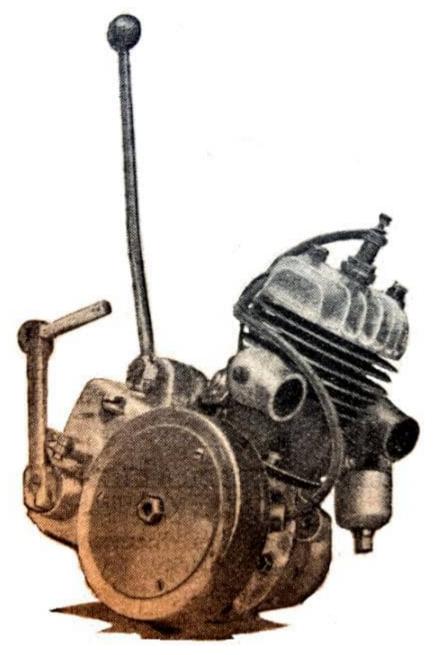
"The 990cc twin-cylinder Matchless is designed as a docile yet extremely powerful solo and also for single-seater sidecar work."

machines bears the stamp of thoroughness in design and construction. Every year the **Velocette** stand at the Motor Cycle Show is a centre of attraction for those who favour race-bred machines. This year is no exception, for the machines shown, in addition to including many racing features, are fully equipped in every way for road use. A trip speedometer electric lighting with voltage control, electric horn, pillion seat and pillion footrests are all standard equipment, and as such are included in the list prices. The range is headed by the famous ohc models, which have aluminium-alloy cylinder heads, totally enclosed valve gear and full equipment. The series of high-camshaft push-rod models is continued for 1938 in three sizes—248, 349 and 495cc. These models have automatic ignition control, which ensures the best possible spark under all conditions. Another interesting feature is a special throttle stop on the carburettor, which gives the most favourable position of the throttle slide for starting purposes. Four-speed gear boxes with foot-change are standard on all Velocette models. Four attractive spring-frame



L-R: "Chain drive, with tensioning devices, is employed in the timing gear of the JAP high-camshaft design; note the unusual form of tappet, the cutaway piston and the skew drive for the oil pump. A British transverse twin—the 990cc unit-construction Brough Superior, which has a synchromesh gear box. Enclosed hairpin valve springs are a notable feature of the Clubman Super Matchless engine, which has push-rod valve operation and mushroom tappets."

models grace the Vincent-HRD stand. As last year, great interest centres around the fleet 998cc ohv Rapide, which, in common with the other models, is fitted with a highcamshaft type of engine. As with the 498cc Meteor, Comet and TT Replica models, the Rapide has fully enclosed valve gear which is pressure lubricated. Hair-pin valve springs are employed, and each valve works in two guides, the valve rocker, which has a forked end, bearing on a hardened collar midway between the guides. The TT Replica is fitted with a new type of cam, and the greater power output thus obtained has necessitated a general stiffening-up of the power unit. The range of workmanlike two-strokes on the Wolf stand are constructed on sound lines with particularly sturdy frames. The excellent finish of these machines should withstand all weathers. The biggest machines in the range are of 249cc capacity. These have Villiers super-sports two-stroke engines, with ignition by flywheel magneto, and transmission through Albion three-speed gear boxes with hand change. Tyres of 3.25in section make for comfortable riding, and a further refinement is a large fuel tank holding 2½ gallons. Next in size are two 148cc petroil-lubricated Villiers-engined machines known as the Vixen models. These have Burman three-speed gear boxes with hand change. Another 150 in the range, the 147cc Minor, has a less sporting performance than the Vixens. Finally comes a 125cc model which is fitted with the neat Villiers deflectorless-piston engine-gear unit. The little



"The 98cc Villiers

unit specially designed for lightweight motor cycles."

98cc power unit is retained for **Villiers'** 1938 range. Then there is the 147cc engine, which was the forerunner of most of the types now made. This is not to be confused with the two-port 148cc engine, which is one of the most popular two-strokes in use for motor cycle work to-day. This model is rather more robust and delivers a performance which is too well known to need emphasis. There are three engines of 196cc capacity. The Mark 2E has a single-port and integral cylinder and head; the Mark lE is similar, except that it has two ports. The 'super-sports' is a two-port engine with a detachable aluminium head. In the 250 class there is the famous long-stroke two-port unit of 249cc with an auxiliary flywheel; a water-cooled edition of this engine; and the 249cc engine with the flat-top piston. The range is completed by a 346cc engine."



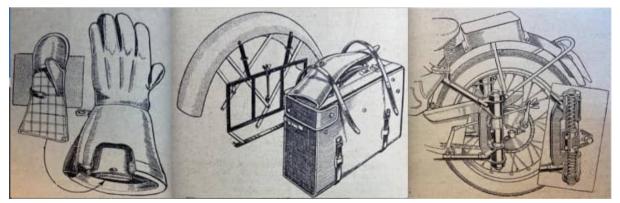
general view of the Earls Court Show. In addition to the exhibits in the body of the hall there was a large section devoted to accessories."

IXION, AS USUAL, took a stroll round the show: "There comes a stage in the history of every industry when it has exhausted the possibilities of its job, and the outburst of novelties ceases. This phase was attained in the teacup industry years ago. I have not encountered a novel teacup for donkey's years; about the only variations one meets concern the decoration. It is not true to assume that the motor bicycle has assumed sheer and absolute finality; but conditions often impose a—let's be really Irish—'temporary finality'. At this moment no manufacturer can venture on audacious enterprise for obvious reasons. At Nottingham, George Brough has what he calls a 'dream dump' in a corner of his factory—it contains motor cycles which cost thousands to build. Each of them is entirely individual, no two being alike; they are all hand-made; and not one of them has ever been duplicated or sold. Exchanges, tariffs and embargo still strangle export trade; unaltered world conditions prohibit costly ventures. Quite apart



L-R: "Neat silencing system employed on the 125cc Villiers-engined James. A special throttle stop is fitted to Velocettes in order to ensure easy starting. Construction of the New Imperial spring frame, which is available at £4 extra on any model except the 150."

from all that, it would be very difficult and perhaps even impossible to design a revolutionary and efficient motor bicycle. So the trade as a whole has decided to 'gild the lily',' ie, to mark time, and to fettle up any such minor faults and imperfections as are known. Here is an example. I called at an Earls Court stand inhabited by a brainy gang of enthusiasts who trust me and will tell me all they know. They have precisely one 'new' model for 1938. During 1937 they were a little puzzled because certain ardent youngsters insisted on buying a model evolved for one-day trials, though the said ardents do not compete over the rough stuff. It proved that the ardents considered this was a very sporting bus with lots of chromium; but on intimate acquaintance with a slogging engine, sit-up-and-beg riding position, and so forth, the ardents were disappointed. So for 1938 the firm is producing a special 'Ardent' model, which looks



L-R: "These Sykes gloves have each a pocket which contains a waterproof mitten. The suit-cases on the 'Kitholda' pannier attachment are quickly detachable (Brooks Mfg Co Ltd). The Norton plunger-type rear springing in its production form."

naughty, can kick a bit, and carries acres of chromium. 'Well,' I groaned, 'if you've nothing else new, tell me all the ingenious little ways in which you've eliminated your 1937 spots of bother!' Replied the Big Noise: 'We honestly didn't have any; our repair and service work was all concerned either with honest wear and tear on pre-1937 stuff,

or with fellows who'd used fuel oil for lubrication, or something idiotic of that sort!' And this is typical! Stand after stand housed sound, robust, rideable, handsome machines, unaltered in essentials from the 1937 or even the 1936 models, as good as any in the world, better than most, but absolutely devoid of novelty. World conditions dictate a conservative policy. Go a step farther, and ask the engineer what he'd do if he were on the brink of a boom. Why, he'd smile a sad, sweet smile, and murmur something about a double flat-twin, like two miniature BMW engines piled vertically one on top of the other, with a self-changing gear box and flexible shaft drive. But it would be commercial suicide to experiment like that as things are."



L-R: "Neat gear box shields, which greatly facilitate cleaning, are standard on all Rudge models. A hand-operated stand is a valuable Rudge feature; note, too, the very long brake pedal and, at the rear, the compensator for the coupled brakes. How the four valves of the 495cc Rudge Special and Sports Special are enclosed. Unusual-type lifting handles and spring-up rear stands with enclosed springs are features of the 'Flying' Coventry Eagles."

"I WAS TURNING OUT a junk corner the other day, and came across a leather case which was once the pride of my life, and which I used to produce nonchalantly wherever motor cyclists foregathered, much to the envy of all beholders. It contained two spare belt-fasteners, complete with bits, a belt punch, a tin of hand cleanser and a first-class knife with a very strong blade. But, had I produced it at Earls Court among a knot of modern riders, they would barely have glanced at it. The same dump contained another gadget—home made this time—of which I 'was inordinately proud at about the same period. Electric lighting for motor cycles had not then arrived, and we had quicklydetachable clips on the handlebars, which held a lengthy double-pronged bracket. The fore bracket carried the gas head lamp, and the rear bracket a small acetylene generator. I faked one of mine by the addition of a third vertical pair of prongs over the middle, in which I carried a second generator, so that when generator No 1 became exhausted, or by rash use of the water-tap 'drowned' its carbide, I merely transferred the rubber pipe to generator No 2 and carried on. To-day it looks a truly terrible contraption, but it earned me worship and envious glances whenever anybody saw it at Brooklands or in a Six Days—Ixion."

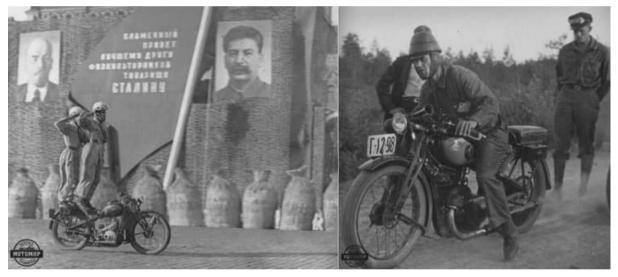
"SEVERAL READERS REMIND me that the Panther machines all have a foolproof adjustment for the rear chain. Both the gear box and the rear wheel are set by means of

twin cams which abut against solid stops, so that the veriest novice can carry out an adjustment without fear of spoiling the alignment. This clever gadget has now been on the market for three years, and it was unpardonable of me to overlook its existence in my paragraph in the September 17th issue."—Ixion. [I'm including this simply because my 1936 M100 Panther has this set-up and it really is les bolleaux de chien—Ed.]

THE L-300 KRASNYI OKTIABR (Red October) was the first Soviet mass produced motorcycle. Having recognised the difficulties in starting an industry from scratch, the Russian authorities decided to test foreign models, choose a suitable one, modify it for Russian conditions, and put it into production. This job was allocated to a design team led by Pyotr Mozharov, who had recently developed and built the first five Soviet motor cycles in Izhevsk. The group was transferred to Leningrad, where the Leningrad Mass Production Trust (TREMASS) ran a number of factories. What emerged was a 293cc twostroke producing just 6.5hp@3,000rpm to give a top speed of about 50mph with 52mpg. A three-speed box had a hand-change. Motorworld reports that there were problems with quality control but the L-300 gave the new Russian motor cycle industry muchneeded experience and, just as important: "The L-300 inspired many young people to join sporting clubs...this bike was widely used for road races or track contests, for crosscountry races, record-breaking attempts and long-distance runs over thousands of kilometers. The Krasny Oktyabr was often a winner in these contests, competing as an equal with motorcycles of non-Soviet brands." Only a handful of L-300s survive, including this example which is preserved for history by the excellent Russian Motorworld museum. [The enthusiasts who run the museum have kindly allowed me to reproduce pics from their superb collection. I recommend a visit to <a href="https://motos-of-">https://motos-of-</a> war.ru/en/motorcycles. Спасибо, друзья, езжайте осторожно!—Ed.]



Russia's industrialisation included motor cycles—starting with the L-300.



The L-300 was an adaptable utility bike that kick-started the Russian industry.



The Red Army was well aware of the need for despatch riders—their Britisn counterparts might well have envied their leathers.

"A REAL SCRAMBLE COURSE, neither a glorified grass-track nor an attempt upon coal tips and factory dumps, was recently discovered about five miles from the centre of Manchester in the direction of Oldham. To most people Manchester and Oldham are one continuous mass of houses, warehouses and factories, but the Manchester Eagle MC told the somewhat sceptical East Cheshire Trials Group that they had found a tiny bit of 'country' that might be in the Lowlands of Scotland or in one of the more remote of the Yorkshire Dales. There was a white-washed farmhouse, a river ran beside the unfenced approach road, and there were some real ups and downs that could be used for scrambling. The place was called Daisy Nook. It all sounded too good to be true, but the Manchester Eagle club were invited to go ahead and organise a 'do'. They did. It was held last Sunday—and full marks were accorded to the organisers. There was a field of 12 in the first heat of the Medlock Scramble for 350cc machines. W. Twiss (349cc BSA) led at a great pace for a couple of laps, but C Holden (249cc OK Supreme) was pressing hard, and when Twiss misjudged a gear change Holden slipped by, and so did F Drew (349cc Triumph). Twiss chased after them, but only made second place. In the next heat, AD Parker (349cc Triumph) had it all his own way after passing J Welch (346cc Levis), who, however, stuck close to him throughout The final proved really exciting with 10 runners, nine of whom chased AD Parker, although only Holden really worried him. On the gentler downward slopes Holden passed Parker more than once, but up a steep, muddy gully the bigger machine could always regain what it had lost. Then Holden fell and from a few inches the lead widened to 50 yards. Holden tried desperately to regain his position and actually finished within two lengths of the winner—a great effort. For

the Daisy Nook Scramble (unlimited) the going was not quite so good. The previous heats and final had cut through the snow and had churned up some distinctly sticky mud in places, particularly at the foot of one fearsome 45° bank, which was a truly hairraising sight when seen from the saddle of a machine just about to take the plunge! The big-stuff event was really remarkable for the way in which JF Hill toured round on his old side-valve long-stroke 'Beam, keeping a constant speed, gear-changing nonchalantly in the bad places, and never having a sign of wheel-spin. He finished so far ahead of the others in his heat that there was every excuse for those folk who were not quite sure if he was leading or was a lap behind! Some surprising things happened in the final. At the 'dead-engine' start (most riders used their kick-starters) AD Parker's primary chain broke, knocked a hole through the aluminium case and fed itself out on to the ground. W Twiss (349cc BSA) took the lead, followed by F Drew (349cc Triumph); KB Norris (248cc Red Panther) was a not-too-dangerous third. Then Twiss, trying to get past a fallen machine on the edge of a minor precipice, 'went down by the lift' rather suddenly, and Drew also dropped lay the wayside. This left the Manchester University trio an unchallenged run into the places. There were seven teams of three in the inter-club team race, and the result of the previous event made the Manchester University Club the hot favourites. How-ever, Holden and Parker secured first and second places for Manchester Eagle, with Ogden fourth. Ken Norris (Red Panther) was first home (in third position) for the University, but JF Hill was sixth and Whyman retired. No other club finished a complete team, so Manchester Eagle won the event without question, with 59 out of a possible 60 points.



"Competitors in the Daisy Nook Scramble get into line as they tackle a steep and muddy descent."

"I HAVE BEEN TERRIBLY ticked off by a reader who says my mind is so blurred that I cannot distinguish between 'up' and 'down'. But the problem concerned whether a piston stops; and in the term 'stop' there is no implication of direction, but only of motion and not-motion. So I repeat that the problem is based on an illusion. When long-off fields a drive by Bradman, and throws the ball in to the wicket-keeper, the ball in mid-career exchanges upward travel for downward travel, but there is not even a pinpoint of time at which it remains poised stationary in the heavens above the turf. I was just feeling rather proud of this analysis when I opened a letter from another reader, who is an Einsteinite. In his view there is no such thing as time, and it is pure folly to describe even a piston reposing on a bench, preparatory to decoking, as 'stationary'. I became rather confused by his arguments, but I gather a 'piston' is a composite conception, involving mines, foundries, tool-shops, flame, oil, and a host of other things, but completely and utterly divorced from any conception of 'motion', which is an illusion based on our minds being unable to grasp existence as a whole. In fact—Kamarad with a capital K!—Ixion."

"THE AMATEUR DIRT-TRACK Riders Club have lost their official mascot—as chicken named Angela. Angelo died in a fight with a dog."

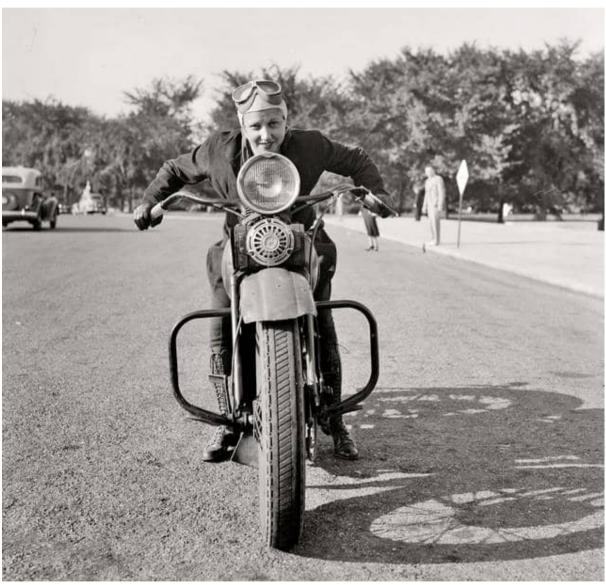
"WHEN A DESPATCH RIDER of the Royal Corps of Signals was summoned for exceeding the limit at Aldershot his commanding officer explained that Army motor cycles were not fitted with speedometers. The DR was fined 17s 6d, however his licence was not endorsed."



Palle Huld and his mate Elith Foss made a series of long-distance runs on their Nimbus outfit; they're pictured in Copenhagen, just back from the Persian Gulf.

FROM THE WASHINGTON POST: "By dint of stamping her foot Sally Robinson, of 2120 H Street Northwest, has become the only girl in Washington licensed to ride a motorcycle. Miss Robinson—all 88 pounds of her—has been operating motorcycles on and off since 1928, but last spring she decided she wanted a permit. The policeman assigned to officiate at her examination had different ideas, however. Although the District has no law against women motorcyclists, this examiner apparently thought it should have. 'First he said I was too little, then he said I was too young,' Miss Robinson declaimed yesterday, malice toward all policeman shining in her eyes. She is 27 years old and 4 feet 11 inches tall, and didn't see what either factor had to do with her sitting behind the handlebars of a motorcycle. 'I passed the written examination all right—passed it twice, in fact. The first time I got 80 on it, but that wasn't good enough for him so I went down again and got 92, when that didn't satisfy him, I got my lawyer. 'Well, that cop looked from me to the lawyer, and from the lawyer to me, and then he said I could take my road test,' she continued. Her difficulties had not ended, however. Thinking all was well, she said goodbye to her lawyer and started out for the road test. Then the policeman announced he would not ride with her in the sidecar of the machine he provided for the

test—he said he was afraid to. But when the test was over, the examiner announced, 'Lady, you handle it as well as a man could. Your balance is swell and you know the machine. But I didn't see you kick it over so I cant give you the permit.' That was when Miss Robinson started 'cussing him out'...I called him such names—well, I was ashamed of myself. But it worked, and I have the permit.' Miss Robinson uses the smallest type of machine built, but at that it weighs 325 pounds, nearly four times as much as she does. Despite the fact, it occasionally falls on her, she insists she would rather ride that machine than eat when she's hungry. As for automobiles, she has no use for them whatsoever. At present her chief goal is membership in the Capitolians, a newly formed motorcycle club of which does not share the Police Departmen'ts prejudice against the sex."



The British women who had ridden in the ISDT might well have been bemused by Sally Robinson's experience.

"I SHALL LONG REMEMBER 1909 as the first year in which I regularly rode with a speed indicator fitted (a Cowey). It was a perfect education to read it when I first bought it, and my eyes were seldom off it. I found, that 25mph was about the only speed I could judge accurately. When I was actually. doing 20mph I thought I was only travelling at 16 or so; when I was doing 40, I usually imagined I was humming at 45 or 50.—Ixion."

"THE MOTOR CYCLING Vicar of Hucknall (Canon Barber) was recently presented with a cheque for £100 by the Bishop of Southwell on behalf of the parishes. And thereby hangs a tale. When the cheque was presented it was gently insinuated that the Canon should replace his 22-year-old Douglas, which was almost a disgrace to the cloth! But the Canon refuses to part with it, as it still gives good service."

"372 new motor cycles were registered in South Africa last August."

"A LEARNER-RIDER summoned at Warrington for having no 'L' plates said: 'I have got some, but they would have got wet in the rain."

"THERE MUST BE MANY who have read The Motor Cycle week by week since its inception. The first motor bike I bought was advertised in the columns of an April, 1905, issue. I had then read The Motor Cycle for several months, and have not missed a copy since. A description of the above machine may be of interest. It was an Ixion two-stroke. The engine was carried on a hinge, which was provided with a lever, and was mounted above the front wheel. A pulley extension of the outside flywheel pressed directly on the front tyre. By means of the said hinge and lever the drive could be disengaged. My last recollection of that dear bike is when the handlebars vibrated right out of the head at full speed—about 25mph. I have seen this performed since as a variety act! I regret to say that every few years 1 have had to burn my accumulated copies of *The Motor Cycle*, but if f had them to-day and all my early bikes I would envy no one. Family reasons have made it four wheels for some years now, but that has not interfered with my growing pile of 'Blue. Books.' In 1911 I climbed Alms Hill on several occasions on a 1909 hp Rex with NSU gear. On one memorable Sunday I made the only ascent, more pretentious bikes remaining below. The simplest and sweetest-running machine I had was a 1910 500cc Rex two-stroke. It was an uncanny climber with sidecar. I have never had a new machine—you don't get the fun fast enough. My thrill always was to get an old bike and make it do the same as the best—perhaps better, although I would not say it is the least expensive method in the long run. Soon I am hoisting my flag on an old Model 9 'Beam, and trusting that as a result the necessity for my getting rebushed with monkey glands will be postponed.

'Whiskers', Croydon."



"Remote control: This wireless-controlled sidecar outfit was demonstrated at the German army's recent 'public inspection' day. Does it foreshadow the day when minor wars may be staged (if people must have them) without a single casualty?"

"A148CC EXCELSIOR-VILLIERS came through strenuous tests in Southern Australia recently. The machine used was taken from stock, the engine sealed, and then put through a 24-hour test, with a relay of riders, by the Port Eirie MCC. The machine covered 585 miles, and the petrol consumption was 134mpg. Next the little mount was subjected to fresh fuel consumption tests, and then taken up Corkscrew Hill, outside Adelaide, one of the steepest hills in the State. It climbed this in second and top gears. Finally came another 24-hour test, in which 621 miles were covered under adverse conditions. The fuel consumption was 134mpg. No attention was given to the machine throughout the tests except for a rear chain adjustment."

"THE BOARD OF TRADE returns, which are published at the end of every month, have this year shown a remarkable rise in the export of British motor cycles. The total value of motor cycles, parts and accessories exported during the first eight months of this year amounts to £918,240 [about £78 million in 2024 allowing for inflation] which represents an increase of nearly 25% on the total for the same period last year. During the month of August alone, machines and parts to the value of £83,754 [£7m] were exported. So far this year Australia has proved to be Great Britain's best customer, having purchased machines to the value of £204,658 [£17.5m]. Exports of motor cycles to foreign countries total £269,859 [£23m]."

'NEW MOTOR CYCLE REGISTRATIONS during 1 July were 'up' nearly 10% on the total for the corresponding month in 1936, according to the official Ministry of Transport figures just issued. The total for July, 1937, was 7,274. Once again, new motor cycles in the over-250cc class showed the biggest rise with a total of 3,599, compared with July, 1936, total of 2,725. Totals for other classes are as follows: Under 150cc, 454; 150-250cc, 2,298; passenger machines, 923."



Maurice Cann is clearly chuffed to bits following his victory in the Senior Manx Grand Prix. His bike, almost inevitably, is a Norton.

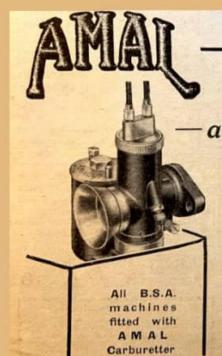
"THROUGHOUT THE YEAR the British motor cycle export trade has flourished in a manner that brings back memories of the pre-slump era. In spite of currency restrictions, trade quotas and other trading difficulties, the figure is £1,101,553. This represents the value of British motor cycles, parts and accessories sold during the first 10 months of this year, and is something to marvel at. Normally, when dealing with trade matters, it is customary to compare export figures with imports, but against the British motor cycle export figure of over a million pounds' worth of machines there are no import figures available. The Board of Trade returns have long since ceased to show motor cycle imports, because they had become so small. During this year the Dominions have bought the major share of our exports. Australia proved (throughout the first 10 months of this year) to be Britain's best individual customer, and has purchased up to the end of October no fewer than 6,369 machines costing £249,339. South Africa spent £78,628 on British motor cycles. Britain's motor cycle exports to foreign countries rose sharply during the months of May, June and July. In June, when the peak was reached, the total came to no less than £58,354, the previous year's figure for this month being £20,941. Our foreign trade for the first 10 months was valued at £325,489, while the total value of motor cycles sold to South Africa, Australia and other British countries amounted to £471,135. It is only when our export figures of this year are

compared with those of previous years that a clear insight into the prosperous position of the export trade can be obtained. As has been already mentioned, the total value of machines, parts and accessories exported during the first 10 months of this year topped the magic million, £1,101,553 to be precise. Last year the total for the some period was only £914,578, while in 1935 it was even less, £890,057. The best month of this year was June, when the returns amounted to £137,510—a figure which compares more than favourably with the June totals of 1936 and 1935, which were £84,108 and £95,863 respectively. A glance at these figures shows that Britain's motor cycle export industry is of considerable valve to the country. "

"OFFICIAL REGISTRATION FIGURES for October show that 1,905 motor cycles of the over-250 c.c. class were brought into use for the first time, an increase of nearly 35% compared with the October, 1936, total. Sidecar machines also showed a big increase, with 363 machines registered, as compared with only 302 a year ago. The total number of motor cycles registered during the month was 3,528. This brought the total number registered for the first 10 months of the year up to 52,150, an increase of nearly 5% over the total for the corresponding period of 1936."

"BRITISH SUPREMACY— ONLY a veteran like myself can appreciate the inwardness of that phrase. I can remember a time when we bought all our motor cycle engines on the Continent. Engineers who decided to market a motor cycle procured passports and tore round France and Belgium to find an engine. When found, they persuaded the maker to bring out a series with some English name on the crankcase. When we competed in a Continental race, we seldom finished; or if we finished, we arrived hours behind the French, Belgian, Austrian or German machines. When at long last we began to produce our own engines, we could not sell a machine overseas because the NSU enjoyed a monopoly. With great determination and skill the British industry recovered from its late start, fought down all its handicaps, and a very different era dawned. I would cross the Channel to report a Continental race on behalf of The Motor Cycle, and see gigantic crowds so reconciled to Britons finishing 1, 2, 3, that all trace of wounded national pride was swamped in their enthusiastic technical appreciation of the British achievements, while the bandsmen kept 'God Save the King' permanently at hand, ready to play a few bars whenever a Briton set up a new lap record. As an Englishman, I am proud to have witnessed such a transformation."—Ixion.

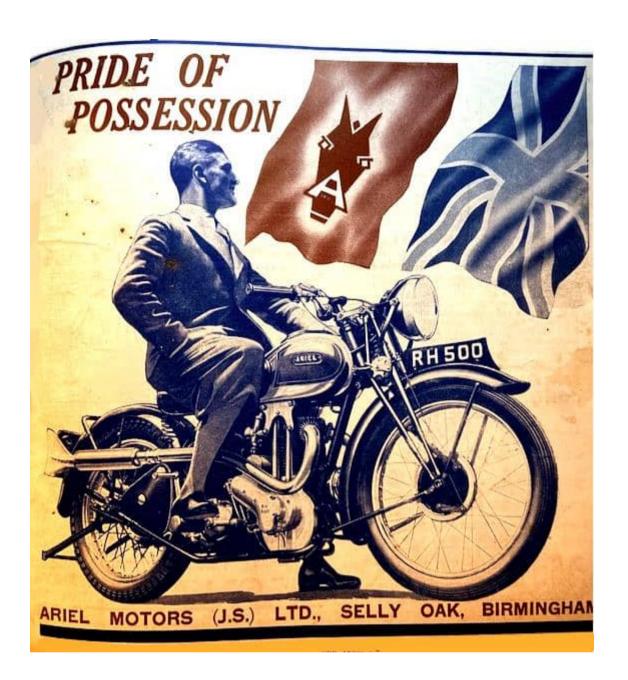
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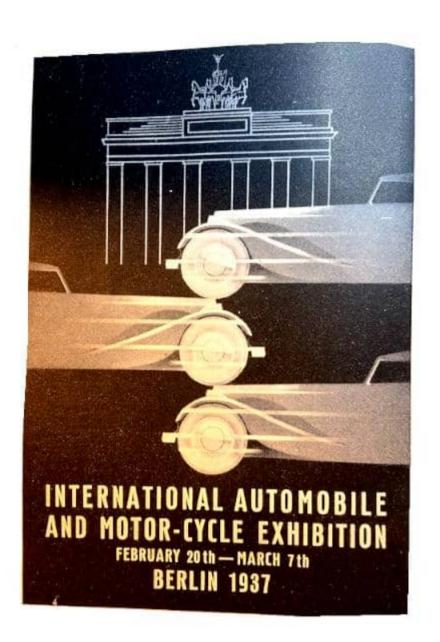


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See pages 8 & 9



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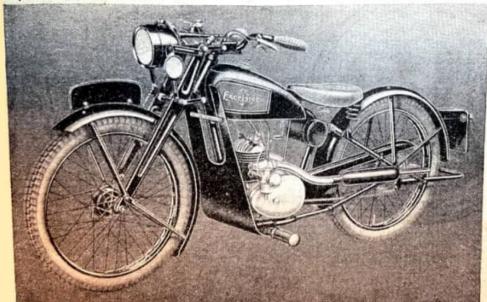








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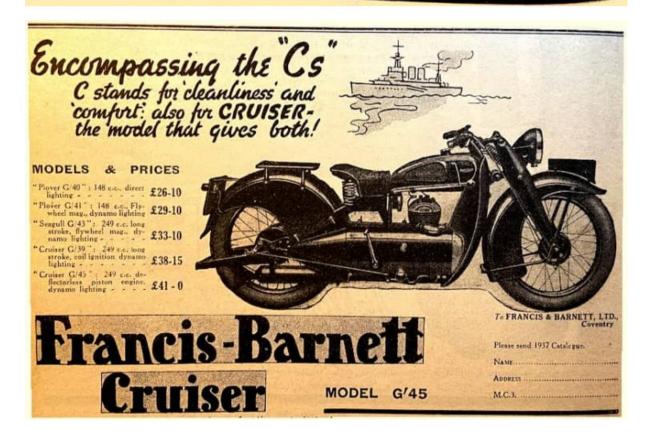
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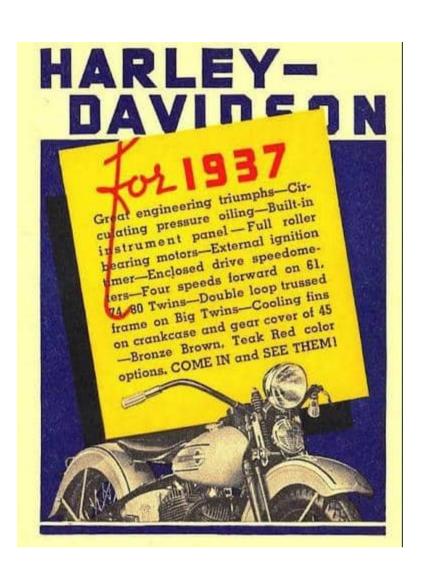
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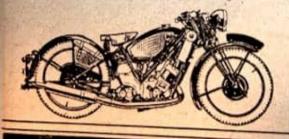
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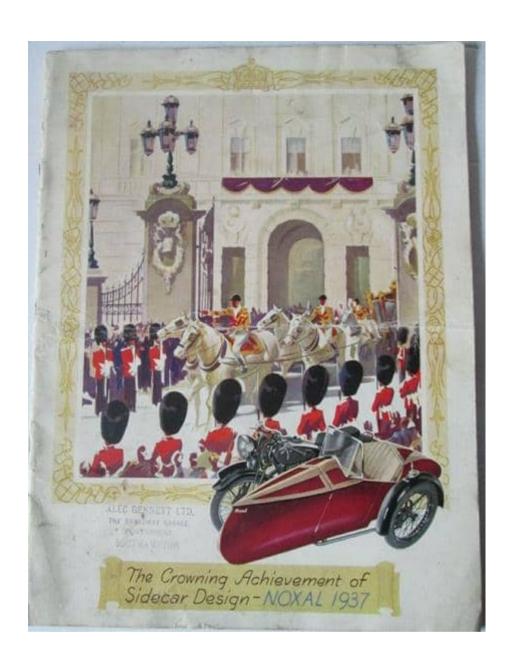
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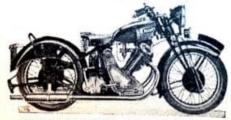


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568, OLD KENT ROAD, LONDON, E.C.1.

Now a word about the Panther 2.2.37. 630 Redwing, it has done about 10,000 Dear Sirs, and up to date I have not had one stop and up to date I have not had one stop
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and purrs along all day at an easy 50 m.p.h. with a double seater (sidecar) m.p.n. with a double seater (Sluecar) and three up . . . and I do get between 75 and 80 miles per gallon of petrol (sidecar) and I can run to Exeter and back in one day without discomfort. She handles wonderfully easy and the braking is superb, in heavy traffic she is as easy to manage as a 250 c.c. in fact the Panther 100 Redwing 600 c.c. is the World's finest machine at the is the World's finest machine at the price and certainly the smartest . . . Yours sincerely, T. L. CLIFFORD.

T is interesting to note that the Panther is the Ore machine that calls forth such spontaneous letters of appreciation as that received from Mr. Clifford. This is particularly important to those of you who are thinking of a new machine. Buy a new Panther and share Mr. Clifford's satisfaction. The Model "100" Panther is ideal both for solo and sidecar use—it does over 90 m.p.g. (solo) and has every refinament you can expect in a luxury machine. Last, but not least, you can obtain a brand New 1936 Model—it you hurry—at a price reduction of £15.



1936 Model "100" Redwing Panther.

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ERE are a few points of the Model "100" Panther—tuned engine 598 c.c. two-port c.h.v., four-speed gear box, positive foot change, oil bath primary, Webb forks, Dunlop tyres, 80,85 m.p.h., 80,95 m.p.g. (solo). Get details of our special 1936 offer. Good price for your old machine—balance payable by special private gradual payment facilities. Don't delay,

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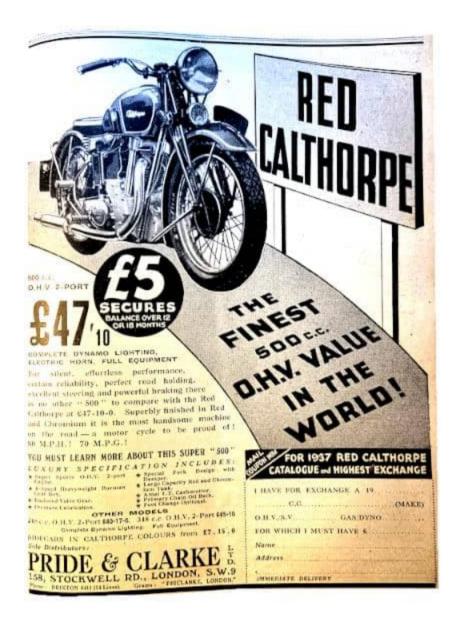
QUIXSPARES! Liverpool.—Heard about the King with the terrible temper? Well, he lost it. But he still has his temper, hasn't he? Funny! You can have your cake and eat it sometimes. For instance, Quixspares sell hundreds of spare parts each day, and still their stock is enormous. That's the secret in this business, keeping the stock large and varied. New stock comes into our stockrooms each week. We couldn't risk our good reputation by letting our stocks run low. By the way, the king with the terrible 

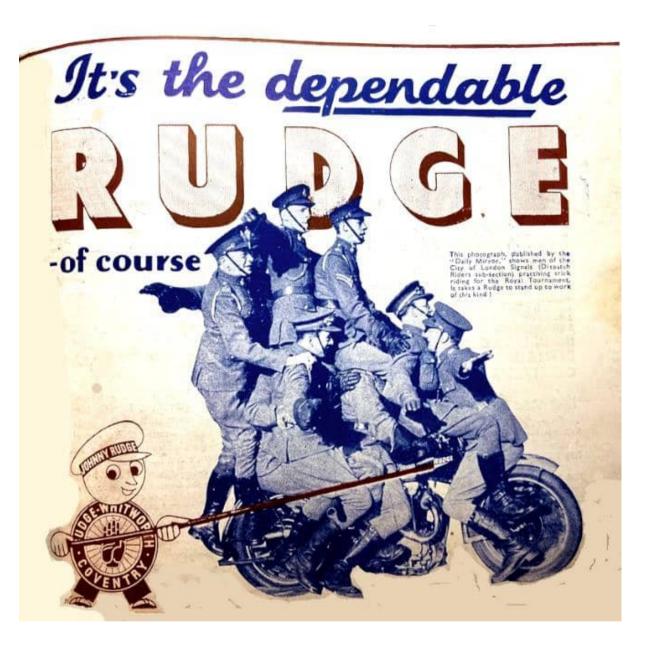
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CROYDON MOTOR CYCLE SPARES, Johnson Rd Croydon, Telephone: Thornton Heath 1770.









# For Learner or Expert





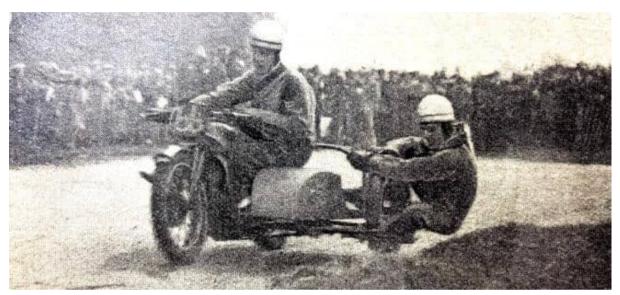


"Clubmen among the lochs: Many Scottish clubmen are especially fortunate in having magnificent loch and mountain country within easy access. Here are members of the Clydebank MCC during a recent run to Lochgoilhead (Argyllshire)."

"TO HAND, A LETTER from an enthusiast enquiring whether the TT will be televised this year or next now that the Boat Race and a Rugger international have been televised. I am credibly informed that the technical problems in the way of televising a Manx race from Alexandra Palace are quite insuperable. I did not personally 'view' the Putney and Twickenham transmissions, but I watched the Harvey vs McAvoy fight televised from Harringay. (Incidentally, I 'viewed' it at a range of 70 miles from Alexandra Palace, which is more than double the guaranteed range.) But it did not rouse me to a passionate desire for the TT to be televised. The screen was so small and the figures so tiny that swift movement was tiring to watch, and it was not very interesting. Motor cyclists' objection to the news-reel film presentation of the TT is that they get only a few feet instead of a solid hour's entertainment. If and when a televised TT becomes possible, I do not think it will satisfy enthusiasts any more than the news-reels do—at any rate, not until a far larger screen is available and programme considerations permit plenty of the race to be transmitted."—Ixion

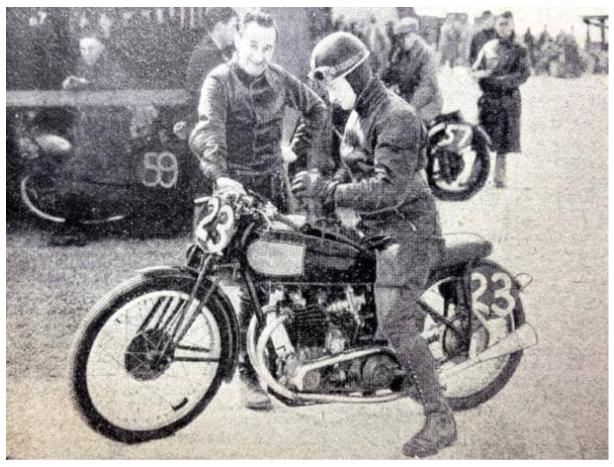
"NEARLY 6,000 PEOPLE filled the Park Hall grounds at Oswestry on Good Friday for the Oswestry Club's miniature road race meeting. They saw racing by some 70 competitors under splendid weather conditions, although no records were broken and there were only a few thrilling finishes. There were five heats of six riders in the novice event, which, according to custom, was run off as the first item. There is no final for this event, the

result being decided on the recorded times of all competitors. C Morris (349cc Rudge) won with a time of 4min 54.8sec; R Brassington (348cc Velocette) was four seconds slower; and H Waddington (348cc Norton) was a further five seconds behind him. The 350cc event produced only one heat that was really thrilling, this being the one in which Roy Evans (349cc Rudge) and Jack Wilkinson (348cc OK Supreme) had a real scrap all the way, Evans finishing under two seconds to the good. This heat was so fast that it not only placed the first two in the final, but FH Worrall (349cc Rudge), the third man, as well."



"Park Hall, as usual, attracted a huge crowd. A glimpse of CE Wickham (490cc sc) in action."

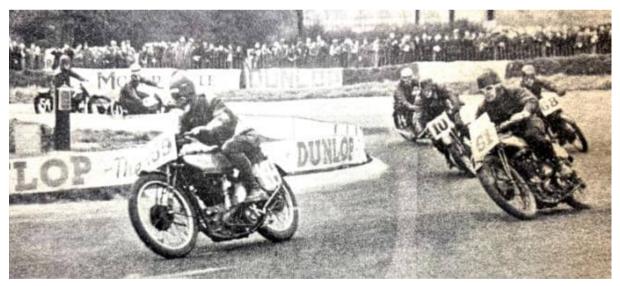
A GLORIOUS morning greeted riders and spectators at Donington on Easter Monday. All roads to the famous track were packed with traffic, and it certainly seemed that a record attendance would be the result. The weather was cold but beautifully bright, and good racing seemed assured. This was the first occasion on which the extended circuit including Melbourne Corner, and the hill approaching it, has been used for motor cycle racing, and, from the outset, it was obvious that speeds would be much higher than on the old circuit. There was an excellent line-up for the first race for 250cc machines, and LJ Archer (New Imperial) set a cracking pace. He was followed by AL Cann (Moto Guzzi), S (Ginger) Wood (Excelsior) and JJ Booker (Royal Enfield). Archer had things all his own way from the word go', and he piled up a lead which held off all opposition. The positions of the leaders remained unchanged until the very last lap, when, surprisingly, and to the disappointment of everyone, Archer failed to appear. This gave Cann the lead, Wood second place and Booker third place. On their heels came D Parkinson (Excelsior) and R Harris (New Imperial), and, following them, RH Pike (Rudge) and DH Whitehead (Rudge). These two had



"Stanley Woods pauses in his chat with 'Ginger' Wood (Excelsior) to smile at the 'MC' photographer."

had a lovely scrap all the time and seemed thoroughly to enjoy themselves. Heat 1 of the 350cc race promised well, but it promised nothing like so much as it gave. It was ding-dong racing all the way, with one man, J Lockett (Norton), riding the race of his life to snatch victory in a most spectacular manner from J Moore (Norton) and Stanley Woods (Velocette). At first, Moore dominated affairs and obtained a formidable lead, being trailed by JB Moss (Norton). During the third lap, however, Moore fell at the hairpin, but recovered remarkably quickly. This let Moss into the lead, but Moore soon had it back again. Then Lockett got down to it and did battle royal with Stanley Woods and J Moore. A blanket would have covered these three as they shot down the straight, and it looked as though Stanley would win. But it was Lockett who finished first, with Moore second and Stanly third. There was only three-fifths of a second between the three as they crossed the line! Heat 2 was much slower and was in the nature of a procession, with R Harris (Velocette) leading handsomely all the way. D Parkinson (Excelsior) was second all the time, and the third man, who also held his place throughout the race, was J Sandison (Norton). The leader's speed in this heat was 66.69mph. The third heat was a spirited event and very well contested. The lead changed hands half way through the race when JRT Upton (Norton) displaced B Gibson (Velocette). On the last lap Upton had a lead of about 100 yards, but Gibson, riding extremely well, reduced this to a

couple of yards as the finishing line was crossed. The first sidecar race was uneventful, and although J Beeton (490cc Norton sc) took a commanding lead at first, LW Taylor (596cc Norton sc) was not to be denied. Driving in his usual polished style, he went ahead and gradually increased his lead until he was so far ahead that nobody had a chance of catching him. Beeton held second place for six laps, but was afterwards passed by W Bibby (596cc Norton sc) and WG Tinsley (596cc Norton sc). All eyes were on Stanley Woods when the first heat of the 500cc race assembled. He had already put up the best time in the 350cc race with a lap at 70.75mph. Badly placed at the start, and ninth at the end of the first lap, Stanley had two remarkably fast men out in front of him. They were Maurice Cann (Norton) and J Moore (Norton). Cann set a very hot pace and passed Moore early in the race. Then Moore dropped back, but took the lead again when Cann fell at the hairpin. Stanley was now creeping up until, finally, only Moore was in front, with N Croft (Norton) coming up a good third. In this order the heat finished, with Moore too far in front for Woods to hope to catch him. In this heat Cann put in a lap at 72.02mph. In the second heat J Lockett (Norton) went for all he was worth, and was, in fact, fast enough to relieve Croft of his third place. Lockett's speed was 68.65mph, and he was chased home by JR Upton (Norton), who averaged 67.26mph. Apart from Lockett's effort, the heat was not really interesting nor was Heat 3, although the latter was enlivened by the appearance of a Scott, a Douglas and a BMW. The second sidecar race was more eventful than the first one. Once again J Beeton (490cc Norton sc) took the lead, but was closely chased by LW Taylor (596cc Norton sc). AH



"A thrilling glimpse of the riding at Melbourne Corner. The riders (in order) are DU Tromans (348cc Norton), JR Hickey (348cc Norton), DH Whitehead (249cc Rudge), JR Stevens (349cc Rudge), FN Pearce (246cc New Imperial, AE Darby (348cc Norton) and N Weir (348cc Norton)."

Horton (596cc Norton sc) put on a wonderful spurt, and went on ahead of both men. Taylor hung on to him grimly, but Horton was in a winning mood. His passenger lay flat on a padded platform and enjoyed himself hugely. Taylor could make no impression on

the leader, but W Bibby (596cc Norton sc) ran past Beaton into third place. It was an excellent race and a close finish, and Horton had reason for congratulating himself on a really stout effort. Several competitors, including. Stanley Woods, JB Moss and M Cann, did not turn out for the first heat of the to 1,100cc solo event. Nevertheless, it was a hotly contested race, with J Moore (Norton) leading from start to finish. In the later stages, Norman Croft (Norton) made an effort, passed H Havercroft (Rudge), and set off after Moore, who was not passed, and Croft had to be satisfied with second place and Havercroft third. In the second heat Lockett again made a great effort, but just failed to come within reach of the first three in the first heat. He went wonderfully well and was miles ahead of his nearest rival, H Taylor (348cc Norton). Lockett's speed was 69.02mph as against 65.98mph by Taylor, which gives an indication of the effort Lockett made. The third heat was uneventful and not anything like fast enough to cut any ice. All the way through, DL Jones (OK Supreme) made the running and finished ahead of everybody else at a speed of 67.73mph."



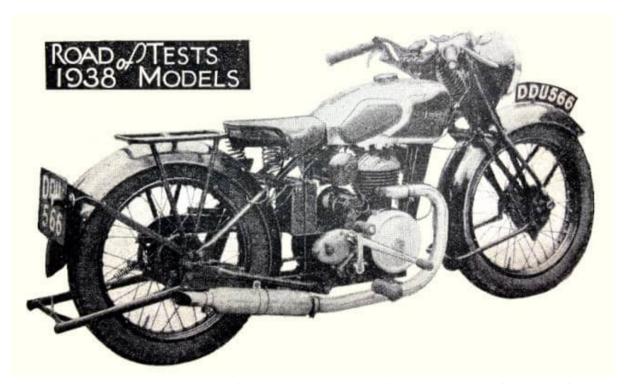
"A study in 'scacrobatics' at Red Gate Corner. The front trio are VS Graham (595cc Grindley-JAP), AH Horton (596cc Norton) and LW Taylor (596cc Norton)."

"OPPORTUNITIES FOR THROTTLE-twisting on a flat stretch of concrete do not occur very often in Scotland. It was not surprising, therefore, to find nearly 40 machines entered for the acceleration tests organised by the Renfrewshire Eagle MCC on the private track of the India Tyre Company at Inchinnan. There were 250cc, 350cc and 600cc classes, non-expert and expert, and the only class that was poorly supported was the 250cc non-expert. Each rider was allowed two runs per class. In the 350cc non-expert class J Thomson (Norton) was best with 11.78sec on the first run, but on the second J Weddell (Norton) recorded 11.70sec and won the class. In the 600cc class J Weddell (490cc Norton) made a fast run in 11sec dead, and of the other nine in the class J West (Rudge) was best with 11.46sec. Weddell reduced his time on his next run,

with 10.64sec. This time stood as the best recorded until the 600cc experts came on the scene. J Valente (Norton) put up a time of 10.7sec, which looked as if it might win the class. Then came A Marr (498cc Douglas), who cracked along to the tune of 10.15sec—a course record and best time of the day."

"OFFICIAL REGISTRATION FIGURES just issued by the Ministry of Transport show that the number of new sidecar outfits registered during February was 315, as compared with only 281 in the corresponding month of 1937. The total number of new machines registered during the month was 2,864. Of this total, 313 machines were in the under 150cc class; 800 between 150 and 250cc; 1.374 over 250cc; and there were 315 sidecars and 62 three-wheelers."

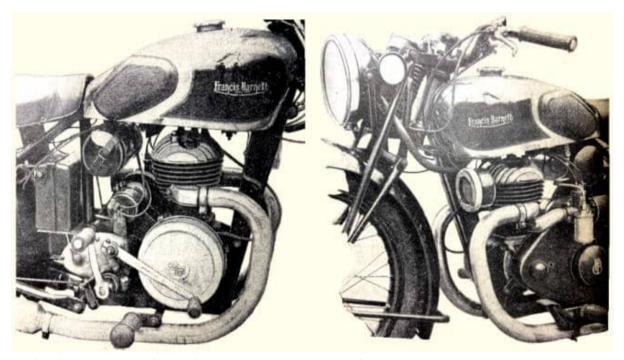
"A TOTAL OF 949 motor cycles was imported by India in the last nine months of 1937, as compared with only 554 machines in the corresponding period a year previously."



"All the components of the Francis-Barnett are neatly disposed yet readily accessible. The new exhaust pipe shape considerably improves the appearance of the model."

"A ROAD TEST OF THE Francis-Barnett H47 Seagull is especially interesting because the machine has a 249cc Villiers deflectorless-piston engine. Its general performance was excellent; it was flexible, lively, and had a surprisingly good turn of speed. In traffic the machine would run happily at under 20mph in top gear (5.2 to 1), and would accelerate cleanly without the rider having to change down. Unless the engine was pulling, four-stroking would occur at these low speeds in top gear, but this was not unpleasantly noticeable and could be obviated by careful use of the throttle—by closing it when the engine was not pulling. Actually, the machine could be throttled down to 10mph in top gear without snatch, and could be accelerated slowly away from this speed on the level.

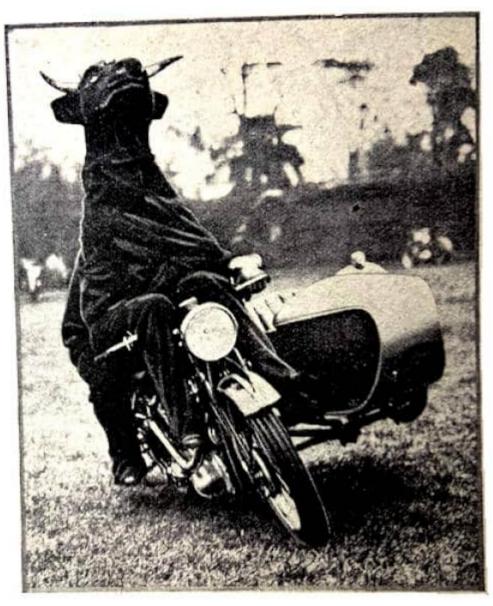
Out of town the machine could be cruised at quite high speeds, and one of its outstanding features was that it would stand really hard driving for long periods without 'fussing' or showing signs of stress. No 1 petrol was used throughout the test, together with oil in the proportion of one pint to two gallons. With this mixture the engine at no time during the test either pinked or knocked. On main-road hills the machine held its speed well, and when the rider was baulked by slower traffic the excellent performance in third gear was found exceptionally useful. In top gear the mean timed speed of four runs over a quarter mile was 60.8mph, and the best speed was nearly 65mph. These speeds were obtained with the rider sitting on the carrier and streamlining himself along the tank, but even so they are very creditable. Throughout the maximum speed tests and during the acceleration tests the machine behaved splendidly, and at no time did it show any signs of drying-up.



"This view of the engine unit shows the neat mounting of the dynamo and the flywheel magneto. The toe-operated gear lever has a surprisingly short movement." (Right) Channel-steel members are used for the main part of the frame. Although the fuel tank appears small, actually it has a capacity of over three gallons."

During one of the acceleration tests the air-filter on the carburettor intake worked loose. Acceleration from a standing start was very good indeed, the machine on each occasion reaching 57mph at the end of a quarter-mile—only 3mph short of the maximum. Consumption of petroil at a steady 40mph worked out at 65mpg. As is to be expected with a modern two-stroke engine, starting was extremely simple. After closing the air slide and flooding the carburettor, one dig on the kick-starter was sufficient to start the engine when cold. It was found important to keep the throttle nearly closed when starting the engine under these conditions. When the engine was warm it was merely necessary for the rider to push down the kick-starter gently, when the engine

would immediately fire. Mechanical noise was not noticeable at any time, and the exhaust note, while healthy at wide throttle openings, was never unduly obtrusive, and under traffic conditions was pleasantly subdued. So much for the engine performance of this excellent little machine. The word 'little' is used in the sense of lightness only, for although its total weight, fully equipped, is only 254lb, the machine has that solid feel associated with much heavier machines. The road-holding, even at high speeds, was excellent. The steering damper was not found necessary at any time during the test, and the steering always gave the rider an immense feeling of safety. On bad roads the front forks dealt efficiently with road shocks, and the rear wheel was not inclined to hop. On fast corners the machine was rock-steady and could be leant over as far as the footrests allowed with perfect safety. At low speeds the steering was positive without being heavy, and no great skill was required to ride feet-up at less than walking pace. This feature, combined with a good steering lock, made the machine extremely pleasant to handle in dense traffic. Ease of control is, in fact, one of the many pleasant features of the Francis-Barnett. Only three of the four controls on the handlebar are used at all frequently, for the air lever is required only when starting from cold. These controls were light and smooth in use. The clutch was particularly pleasant, being positive and at the same time very sweet when taking up the drive. Both brakes were well up to their work and were pleasantly 'spongy'. Either would hold the machine on a gradient of 1 in 5, and used together they would bring the machine to rest from 30mph in 42ft. The positioning of the footrests, handlebars and saddle is good, for although the Seagull is a small machine it will accommodate a tall rider comfortably. The handlebars give a natural, low position for the rider's hands and arms, and the saddle is high enough to allow a comfortable leg position. One criticism can be applied to the position, viz, that the rider's leg is inclined to foul the carburettor. Obviously the makers have given a good deal of thought to the Seagull. The machine is not expensive, yet the equipment includes a 6-volt lighting set, four-speed gear box with foot change, three-gallon fuel tank, and a carrier. To sum up, the machine is easy to handle under all conditions, has a good all-round performance, and useful maximum and cruising speeds."



"Two 'terriers'

equal one bull, and, in charge of five 'horses', they put up a clever display in London. In less mysterious language, these two members of City of London Signals (Territorials) were rehearsing for a bull-fight they are later to give to a thrilled public!"

"IT IS WITH THE DEEPEST REGRET that *Motor Cycling* records the death of Eric Fernihough, who was killed at Gyon, in Hungary, on Saturday last when attempting to regain the world's motorcycle speed record on his supercharged Brough Superior. At the time of going to press details of the tragic accident are still vague. All that we know is that when travelling in the region of 170mph the machine suddenly swerved off the road and catapulted Fernihough over the handlebars. He was rushed to the University Clinic, but died without regaining consciousness, of a severe fracture to the base of the skull. And so passes a brilliant rider-tuner, who has done more than any other individual to keep the British flag flying right at the top of the record-breaking sphere."



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Le coureur motocycliste angleis
FERNIHOUGH, s'est tué hier sur
l'aérodrome de Gyon alors qu'il
s'ettaquait au record mondial du
kilomètre. Ce grand champion avait
vitesse.

N.F.M.- une récente photo de Eric
FERNIHOUGH.

FRANCE PRESSE VOIR 24/4/38. Nº12
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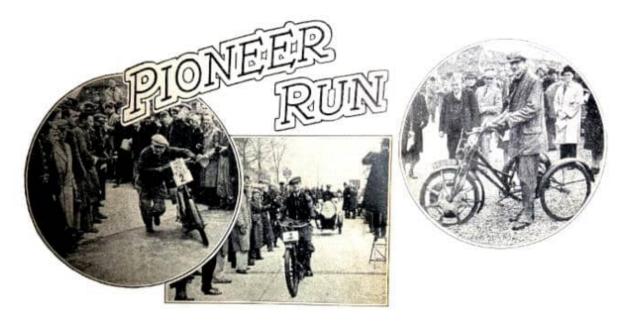
French news agency.

Fernihough's death, as reported by a



"GREAT BRITAIN HAS SUFFERED a most grievous loss, for Eric Fernihough, her fastest motorcyclist, is dead. He met his fate in Hungary whilst striving to regain for his country the 'World's Fastest' motor cycle record. Thus ends an heroic struggle against apathy and adversity, for 'Ferni' fought a lone battle against the organised might of Continental countries. Fired by the flame of a burning patriotism, his life was dedicated to the furtherance of British motor cycling prestige. And now that life has been sacrificed. But it has not been sacrificed in vain, for although Fernihough the Man has passed on his name will be handed down through the generations of motor cyclists to come as an example of all that is best in sportsmanship. Denied by his own country the use of a suitable road, financial assistance or official recognition, Fernihough did not despair. A Crusader in the true sense of the word, he spared neither himself nor his substance in his endeavours to make Great Britain supreme, his only reward the unstinted praise and admiration of his fellow motor cyclists. In victory or defeat he remained always the perfect sportsman and a most worthy ambassador for his country. He will be hard to replace, but British history records that the sacrifices of her sons make the heroes of tomorrow, and the man will be found who will don the armour of that very gallant gentleman Eric Fernihough. Whilst we convey to his widow our sincere sympathies, we are proud to write beneath his name the epitaph: 'Killed in action in the service of Great Britain.'"





L-R: "The well-known ex-Brooklands expert Rex Judd, pushing off his 1898 four-cylinder Holden—the oldest machine in the event—which has no gearbox, no clutch and direct drive from pistons to rear wheel! With a 'Courtesy Cop' an interested observer, FE Hawken rides his 1904 FN between an avenue of spectators. NCB Harrison and his 1901 Singer in which the engine is built as part of the front wheel."

"CROWDS CAME FROM far and near last Sunday to watch the Ninth Annual Sunbeam MCC Pioneer Run pass by...not one of the machines among the 38 entrants was built after the end of 1914, and, in fact, eight of them were built prior to 1905. Of the 'pre-1905' models two did not even belong to the present century. The route lay from Tattenham Corner, on Epsom Downs, to the Devil's Dyke Hotel, in Brighton's hinterland, and passed through Reigate, Crawley and Bolney. For those machines built later than 1904 the whole run had to be carried out non-stop, but in the cases of the earlier mounts, the 'non-stop section' finished at the famous Pylons, a few miles before the Devil's Dyke. The regulations, while permitting no adjustments en route, allowed the older machines to refuel without penalisation in consideration of their diminutive tanks. Each rider was accompanied by an observer, mounted on a modern machine, whose job it was to record the progress of his companion. The scene in the starting paddock on Epsom Downs would have brought joy to the heart of any old-timer; wondering groups stood around almost every ancient model while the 'phut-er-phutter-phut' of the aged engines, wheezily struggling for breath, would have struck music in his ears. The comments of the crowd were varied but nearly always appreciative. They would gaze at some spidery, high and flimsy machine, built long before many of them were born, and admire the skill and pluck of those who had ridden them in those far-off days of bad roads and public prejudice; then they would express wonder at the sight of an elaborate motorcycle incorporating many of the details in a specification which they, themselves, long for, but which is denied them, even to-day—the handiwork of some long-forgotten engineer whose ideas had been too far ahead of his time...For example, there was S

Jess's 1912 Wilkinson combination, an 800cc outfit having a water-cooled straight-four engine, shaft drive and a spring frame—a specification which, to-day, could be called ultra-modern. The oldest mount there on Sunday was Rex Judd's 990cc 'opposed-four' Holden, built in 1898 and having its crankshaft in the rear hub! The runner-up for longevity was a beautifully kept Ariel tricycle, circa 1899, entered by EA Marshall, which had a water-cooled head. Other interesting mounts included C Bullen-Brown's 1902 Clement-Garrard—a real lightweight of 142cc—the 1901 Singer tricvcle ridden by NCB Harrison and having its 200cc engine mounted in the front wheel, the 1914 unitconstruction Calthorpe entered by HR Nash and ridden by CK Mortimer, and CR Southall's 1912 AC Sociable, which he drove all the way down from Birmingham. Another rider who came a very long way to compete was Norman Cox, who brought his 1912 Triumph from Yorkshire. The weather, as is usually the case where a Sunbeam Club event is concerned, was eminently suitable for the occasion, for, although no rain fell, the temperature was low enough to help the doubtful cooling of the old machines. At a minute after 10am, No 1, C Bullen-Brown, pushed off his Clement-Garrard and began his run to Brighton; next the Holden 'four', Rex Judd up, went into action, and very queer it looked, its tiny big-ends twinkling round each side of the back wheel as it got up speed. And so the veterans began their task and not one of those who had arrived failed to start. C. NV. Rowe's 1914 NUT twin sparkled in new paint and plate and hummed along with scarcely a sound: both he and FW Clark (1911 Scott) forced the pace up to between 50 and 55mph, and soon discovered the poignant truth that, except for short stretches, the speed of pre-war machines is still much too high for 1938-pattern roads! NCB Harrison (1901 Singer) had a warm time, notwithstanding the weather, for when he was not pedalling to assist his unwilling pair of horses, he was extinguishing the flames which frequently threatened to engulf his machine. Being without pedals proved a severe handicap to Rex Judd (1898 Holden), and he had to assist his Victorian model in scooter fashion until one shoe was nearly worn through. Nevertheless, he got to Brighton with only one unofficial stop, to refill his water tank. In remarkably few cases did Anno Domini take full toll, and one of the real hard-luck retirements was that of HW Bullock, the rear-wheel bearings of whose 1909 Triumph disintegrated although his engine was full of 'urge'; then another machine of the veteran Pioneer supporter, HE Cooke (1902 Kerry twin), whose magneto gave out. Cooke, incidentally, was the only 'pre-1905' entrant not to finish. Such bothers as belt-slip, due to oil getting on to the drive, stuck valves and choked fuel supplies caused most of the few stops which occurred, and one could not help but he impressed by the reliability and speed of the competitors' machines. The first man to arrive at the finish was FW Clark, whose aged Scott, followed by a yowling string of its descendants, had clipped off the run in 61 minutes!"

"WHEN NEXT YOU SEE, in gleaming lights, that famous name 'George Formby' glowing on the front of your cinema theatre, take more than a film fan's interest because it is the

name of a real, keen motorcyclist like yourself; it is the name of a man who, despite the fame which outstanding talent and originality have brought him, still hankers after the thrill of a fast 500, and would like nothing better than a day's tinkering with an engine. At the top of his profession, George Formby, who has achieved that aim of all theatrical folk, to appear before our King and Queen, holds dearest his memories of the days when, riding a not-too-good side-valuer, he travelled from theatre to theatre doing his 'shows'—and he still thinks that the best way of getting about town is on a solo. I found George in his dressing-room at a well-known London theatre, and the fact that I had come to talk to him about motor cycling ensured me a war and rapid reception. As a matter of fact, I gathered that he had put off one or two other visitors who had been worrying him for interviews. Before I had a chance to ask him questions George was putting me through quite an inquisition about the model I used; what was this trial or that trial like; had I seen So-and-So or What's-his-Name lately, and it was quite a while before I could get him to talk about himself. Naturally we discussed that marvellous TT film of George's—No Limit. What motor cyclist has not seen it, or at least heard all about it from enthusiastic friends? I won't attempt to reproduce George's broad Lancashire accent—suffice it to state that when you hear him on the air, or on a record, or in a film—well, that's the way he talks in real life 'and no kid'. "Do you know," said Formby, "I'd have played that part for nothing—just to have a ride on a fast machine on the actual TT course. I'd have liked to have entered the race in reality, but as I can't do that, well, I did the next best thing. When the producers were looking for a subject for a film in which I was to star they asked me what I thought. So I told 'em that nobody had ever filmed a TT race. They fell for it at once, so we got in touch with the Manx Club, obtained their advice on details, and we found their help invaluable. Particularly did we have to thank the Howell brothers, who rounded up all the fast riders in the Island for group shots. The IoM people were fine and gave us all the help they could. Where necessary, we used shots taken in the 1935 Senior race, when Stanley Woods won on the Guzzi at eighty-four-six-eight, but we actually used very few of these. As a matter of fact, we found that the real racing didn't have enough crashes to suit us, so we had to stage a few for good measure! To fill the grandstands, we got a crowd of holiday-makers from Cunningham's Camp to come along, and didn't they enjoy themselves! Between shots we kept them amused with music and distributed lunch baskets, for we had them there all day long." I asked George whether he had used a 'double' for any of the fastriding scenes. He was scandalised. 'What!' he almost shouted. "Me use a 'double' for motor cycling? I'd have crowned anybody who had wanted to ride my bike! As it was, an 'extra' borrowed it, went too fast, scared himself out of his wits and ran into a car. He bent the model so badly that we had to send to Birmingham for another!" George's face was amusing as he registered the horror which he had, evidently, felt when his pet machine had been reduced to scrap in his absence. I sympathised with him, for I have had a similar experience...Like most laymen, I held the opinion that much of what we see in films is faked, and asked whether there was any faking about No Limit.

"Practically none at all," said George. "A dummy or two was used when really serious crashes were shot, but, for instance, when a machine ran on the bank, burst into flames at the top and came down ablaze, that model was well and truly burnt out. We saturated it in petrol and sent it up the bank where a couple of men were hidden at the top with torches.



"George

Formby in a scene from the motor cycling film *No Limit*—an ATP production which was a pronounced success. Perhaps you have a record of his theme song, *Riding in the TT Races*." And, thanks to the magic of YouTube, benighted souls who haven't seen our George sing *TT Races* may do so

here: <a href="https://www.youtube.com/watch?v=1w5TbrZ">https://www.youtube.com/watch?v=1w5TbrZ</a> XeQ ...and if you haven't seen George in action on the Shuttleworth

Snap... <a href="https://www.youtube.com/watch?v=ukCc3c6RVo4">https://www.youtube.com/watch?v=ukCc3c6RVo4</a> Eeee, it's turned out nice again!

They touched it off, so that when it came down it was burning like a bonfire. On the other hand, we had several unrehearsed incidents which we kept in the film. There was one, which very nearly brought my career to a sudden and definite finish. You remember how, when I am supposed to be flat-out, you get, a close-up of the front of the machine and I let go with one hand to wave to a girl in the crowd—Florence Desmond, of course? Well,

we obtained those shots in this way. We used a very special fast car with the camera at the back; behind them trailed a cable with a white disc at the end. I had to keep my front wheel just behind that disc so that the cameraman could keep me in focus, and in that fashion we marched along with the throttle very near full open. When the time came for me to wave to Florence, I went just a shade too fast and my front wheel went over the disc...I had only one hand on the bars and, of course, when the disc got under the wheel it pulled it out of the straight and let me in for the father and mother of a wobble...! I don't know now how I saved the plot, but when we saw the shot it was so realistic that we made use of it." There was one thing which he told me about the TT film which, more than anything else, impressed me with the seriousness and painstaking care with which it had been produced by Mr Monty Banks and his merry men. It concerned the finish, when George pushed his machine over the line to win by a split second before the 'villain of the piece' flashed by ('Ah-ha! Foiled again!!'). It seemed that, in order to get just the right effect, George had to run from Governor's Bridge to the stands—nearly a quarter of a mile, in full leathers and pushing his heavy 500—no fewer than seven times before they got the shot they wanted. The rival would either be too far ahead or too far astern at the line—it was all a matter of timing, and everybody, George included, wanted to get it right, whatever it cost in perspiration. Apart from his famous TT film, Formby has done a lot of motor cycling, including racing at Southport. Since 1920 he has owned an amazing number of different machines, ranging from a 1913 hub-geared Humber, on which he taught himself to ride and which he bought for £20 and hotted up so much that he 'burst' it, to a 'very, very' Ulster Rudge, on which George distinguished himself at a grass-track meeting near Burnley, Lanes, by winning several races and put up the fastest time of the day. On another occasion he rode at Post Hill. Other models which Formby has possessed at one time or another include a 350 Blackburn, a Matador (remember those sleek little red motors?), a Levis, an Ivy, a Royal Ruby, an OK-Villiers, a Francis-Barnett, a brace of sv AJSs, a Rudge Multi and a Zenith Gradua, a Harley-Davidson (with a cut-out which George used to keep off dogs), a 7-9 Indian, the first 'Riccy' Triumph to appear in Warrington and to which he fitted a sidecar, a very quick ohy Douglas, a longstroke Sunbeam and a twin NUT. That a solo motorcycle is the best wear for town travel is George Formby's firm conviction and, to quote the words of this experienced rider: "The vulnerability of the motor cyclist that we hear so much about is, I think, mostly eyewash. If you handle your machine properly you should never have a crash and, if you do, the chances are that you will be chucked clear. Which fact, to a great extent, cancels out the much-vaunted 'security' of a car, where you are boxed in."



On 26 May 2004, to

mark the centenary of George's birth, the Isle of Man Post Office released a set of commemorative stamps featuring, of course, the Shuttleworth Snap.

"THIS YEAR'S ILKLEY Grand National was rather a disappointment as a super-sporting event because the prolonged spell of dry weather had taken all the sting out of the course. Compared with last year's event, however, there is no doubt that the competitors much preferred last Saturday's conditions, for in 1937 it rained in torrents all the time and the course was feet under mud in places. This year mud was conspicuous by its absence, but the Ilkley &DMC officials managed to introduce enough 'trickery' into the circuit to cause everybody to lose marks—even the winner, Ken Wilson (498cc Matchless), lost as many as 25. The starting and finishing point was the Royalty Inn, on Chevin Top, overlooking Otley, and the circuit of some 20 miles had to be covered three times. It embraced a number of well-known sections, commencing with Danefield Steps and Pool Crags, which had to be descended on the first circuit and climbed on the last lap."



"F Holroyd (498cc Panther) has to receive assistance on Norwood Edge." (Right) "The winner of the trial, K Wilson (498cc Matchless), making a good climb of Norwood Hill."

"SOAP CAN BE a useful means of finding top dead centre. Screw an old plug body into the plug hole and bring the piston to the top of the cylinder on compression stroke. Smear a film of soap lather across the top of the plug body and rock the crankshaft so that the bubble increases and decreases in size, the maximum bulge on the bubble indicates TDC.

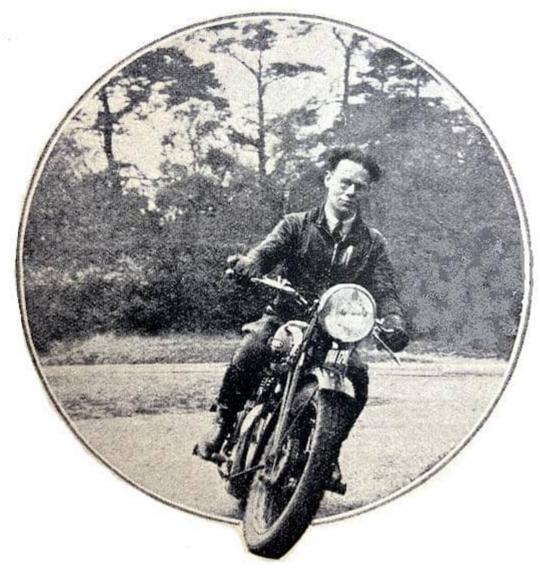
## **Dudley W Hearn.**"

"HUNDREDS OF BABIES. Three hundred and thirteen machines of under 150cc capacity were registered during February. This compares very favourably with the figure of 252 recorded for the same period last year."

"A CARBURETTER(OR) MATTER. The question of the alternative methods of spelling the word 'carburetter' has been causing a certain amount of heartburning to a number of entrants in Motor Cycling's latest competition. To clear up the matter, competitors can rest assured that the word in dispute has not, and will not be used in this connection."

"AUSTRALIAN TT RACES. Norton machines occupied the first and second places in the Australian Junior TT and first, second, third and fourth places in the Senior event."

## Road Tests of 1938 Models

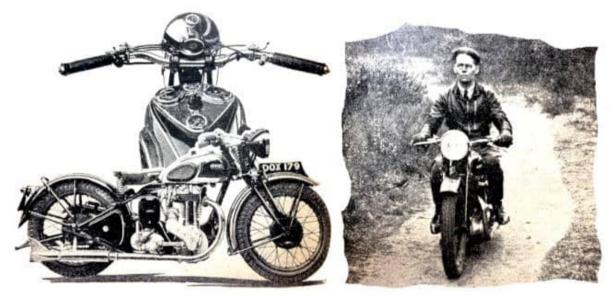


As a

touring machine the Ariel proved itself exemplary, and the cornering and general handling qualities were excellent."

"IN THESE DAYS OF ultra high-performance motor cycles it is apt to be forgotten that most manufacturers list a model or models intended purely for touring use. One of the best machines of this type, a 350cc ohv Model NG Ariel, has just completed more than 1,000 miles in the hands of Motor Cycling's testers and it proved itself a most likeable and pleasant mount. Many machines of various makes have earned reputations for their individuality, and this Ariel should definitely have a place in this class. Its characteristics are comfort, quietness and a wonderfully docile power unit. The Ariel at once gives an impression of smartness. It is finished in black and chromium and the work is excellently and thoroughly carried out. The power unit is neat, the valve gear and all moving parts being totally enclosed, and there being a minimum of external 'plumbing'.

Seated in the saddle, a rider of average height is given a feeling of complete control and comfort, the body being practically upright when the hands are resting easily on the handlebars. One small detail criticism relates to the footrests, which were placed rather high and when adjustment was attempted it was found that the offside rest could not be lowered any further owing to the position of the exhaust pipe. Starting was a feature of this 350 which cannot be too highly praised. Almost without exception one kick was sufficient to get the motor ticking over quite easily and slowly. When the engine was warm no particular care had to be taken of the positions of the controls to obtain this very fine starting, but when cold it was found that the best results were obtained with the magneto about one-third retarded and the air lever fully closed. Very little throttle opening was necessary and, in fact, it was best to keep the twist grip nearly shut for a moment or two after the engine had fired, as otherwise it might 'fluff out' if the throttle was immediately opened. The controls, which are of the grouped type, were all very well placed, and the clutch was delightful—smooth and light in action. The exhaust valve lifter and the magneto control are of the lever type mounted together on the left handlebar.

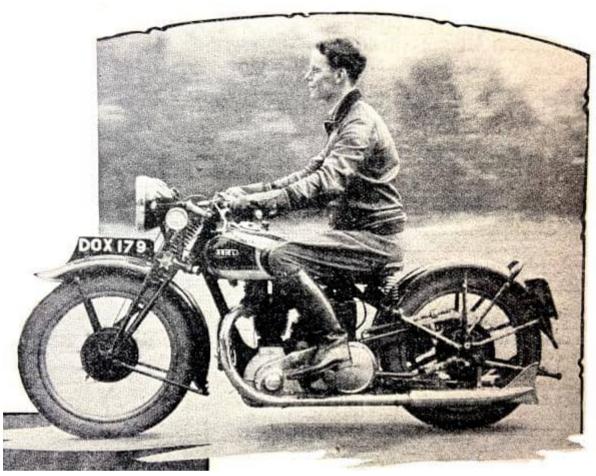


"The neat arrangement of the handlebar controls and the tank-top instrument panel. Note the lever-type exhaust valve lifter paired up with the magneto control on the left handlebar. A combined dash and inspection lamp is incorporated. Handsome lines and de luxe detail finish make this 350 a most attractive machine. Note the enclosed valve gear and the moulded rubber cover for the clutch lever on the gearbox."

When under way the machine was found to be delightfully controllable; it steered well and could be placed just where it was required, and for pottering about in London traffic this ease of handling was much appreciated. On the open road, too, the general handiness of the Ariel was remarkable. It is not intended to be a sporting mount and, in consequence, the engine performance is not outstanding, but the road holding and cornering at cruising speeds made it easy to put up good averages over long distances.

As a touring mount this 350 Ariel lacked none of the qualities which are so desirable for this class of riding. The engine would pull quite comfortably at a very low rate of rpm and at times gave the impression that it was more like a side-valve than an ohv in this respect; on the other hand it had real ohy acceleration. For the rider of an exploring turn of mind the handling on real colonial going would inspire confidence and it is here that the trials breeding for which Ariels are famous is demonstrated. Through thick mud and over rutty lanes the model could be handled with ease without any need for foot slogging, and the tester formed the opinion that, fitted with a couple of competition tyres, this would be an excellent go-anywhere mount for the countryman or for colonial use. The actual maximum speed proved to be 65mph, which is a very reasonable figure for this type of machine. At this speed it was found advisable to have the steering damper in action, and over rough surfaces a certain amount of fore-and aft pitching was noticeable. Nevertheless, fast bends could be taken flat out with a perfect feeling of security on ordinary surfaces. When dealing with performance the matter of brakes immediately comes to mind, and in this department the Ariel was far above the average for its class. The anchors were really awe-inspiring in their efficiency; not only would they stop the machine in a very short distance but they would do so without any fuss or bother, smoothly and powerfully. Really hard pressure on the front brake lever would make the front tyre squeal on a dry tarred road, and although the rear wheel could be locked by heavy pressure it was possible to tell to a degree when this would happen, with the result that the maximum braking efficiency could always be utilised. The excellent arrangement of the controls has already been dealt with; but the machine has a tank-top instrument panel and the speedometer is mounted here. In this position it was rather difficult to keep a constant check on one's speeds as it was awkward to look quickly from the road in front to the instrument mounted almost between the rider's knees. The gearbox was pleasant and quiet, and the foot operating lever required a very short movement to effect a change of ratio. In third gear (7.3 to 1) a maximum Of 55mph was obtainable, but at this speed the valves were commencing to bounce. In the second ratio (5.7 to 1) a maximum of 41mph was reached. These speeds were obtained with the rider crouching down in the saddle. At all times the exhaust note was very subdued, little more than a burble emanating from the twin fishtails whether the throttle was opened wide or the model just touring along at a leisurely pace. Because of this very high degree of exhaust silence a certain amount of mechanical noise from the tappets could be heard, but the transmission and timing gear were quite quiet. Incidentally, the fishtails project well to the rear of the machine, and some care is necessary when lifting the model on to its rear stand to avoid getting one's legs in the way as the machine comes back. Riding at night behind the large-diameter Lucas head lamp was very pleasant. The beam given was well diffused and had a very long range, and the dipping switch on the left handlebar was in such a position that it could be operated very easily. Some long night rides were undertaken, and it was found that the average speeds were very little below those attained in broad daylight. Economy of fuel

consumption was a good feature of this Ariel. For country running it was possible to cover approximately 85 miles to one gallon of No 1 fuel, and for town work approximately 70 miles. In this connection, although the motor would run very well on any standard fuel, it seemed to prefer one of the Ethylised brands, and with this type of petrol in the tank it was practically impossible to make the engine pink, however hamhanded the rider was with the throttle. The consumption of oil was not quite up to the same standard, as one gallon was required approximately every 1.100 miles. This may be in part due to the fact that there was a certain amount of leakage from the oil-pipe unions on the timing case, and also that lubricant seeped out in small quantities from the rocker housings and the oil-bath primary chaincase. The chains themselves were well supplied with lubricant and did not require any adjusting whilst the machine was in our possession. Most of the adjustments of the various components were found to be readily accessible, but it was difficult to get a feeler gauge between the rocker and the valve stem to measure up the actual clearances. This was due to the fact that the screw-on cap did not allow of sufficient room for the feeler gauge to be inserted. The detail work throughout the machine is excellently carried out and the manufacturers must be congratulated on producing a really first-class de luxe 350 with a good performance, excellent handling and a docile and pleasant motor for the very reasonable figure of £55 10s."



"The riding position on the Ariel is very comfortable for long distance work and the mount was used extensively for touring and for 'taxi-work' in town."

"THE RECENT ARTICLE on motorised cycles reminds me of some interesting details I have collected. I get a great deal of fun out of studying the various aspects of motor cycling and the potential use of the motor cycle to the 'world's workers'. I made a dip check of some 300 members of the BMCA, as to the occupations of the riders. There were 66 different occupations concerned. Some were plumbers, fitters, builders, electricians and decorators. Clerical workers were also prominent, not omitting labourers, whilst secretaries, school teachers and shop assistants occupied a 'place of honour'. There was another group of people whose normal occupation is that of professional transport men, such as chauffeurs, taxi-drivers, lorry and bus drivers, and the like. The old doggerel comes to mind, 'Tinker, Tailor, Soldier, Sailor', when you consider 'motor cycles with pedals', which may well be the best friends of every worker and indeed of professional men like doctors and parsons. I profoundly hope that the manufacturers will produce the goods and 'tell the world' and, in spite, of the Jeremiads of the industry, there will soon be 1,000,000 registered motor cyclists in Great Britain. The process is that of graduation; that is, a gradual step from the pedal cycle or the pedestrian to a small motor-cycle, followed by the graduation to the large types of motor cycles. Upon the success of the graduation process. the makers of small-type machines will get customers from the recruits and pass them on to the famous makers

of the 500s and over, who over a period of years have expended great energy and expense in making the British motor cycle pre-eminent in the World and deserve to reap a rich harvest. Make Great Britain 'motor cycle conscious' and you will make her fitter and more efficient.

SA Davis, Organising Secretary, BMCA."











"Excerpts from the Gaumont British Newsreel showing Jack Williams's spectacular ascent of Red Marley hill on Bank Holiday. Note the distance the machine travelled on its rear wheel."

"THE MUSINGS OF A Mid-Victorian Magistrate. When fining an 18-year-old motor cyclist at Epsom recently, the Chairman of the Bench said: 'Anyone who gives up motor cycling is to be commended.' This statement, coming from a man in a privileged position, at a time when the Army, the Territorials and the police are appealing for motor cyclist recruits, is nothing short of amazing. A prejudiced remark of this nature can hardly imbue motoring technical offenders with a respect for the justice to be anticipated from the bench of this horse-conscious township. It is the duty of a magistrate to dispense the law; he is not entitled to interlard his findings with his personal and irrelevant opinions. Presumably he has forgotten the services rendered by motor cyclists in 1914-1918. There may yet come a time when the Chairman of the Epsom Bench will have cause to be grateful for similar services. Whilst we cannot commend his common sense, we can only hope his legal decisions are wiser than his published comments."

BELGIUM, THE NETHERLANDS AND GERMANY jointly organised what *Motor Cycling* dubbed the "International Three Days". Out of an entry of 150, 108 were Germans. They took on 24 Dutch and 14 Belgians; teams for the "International Challenge" comprised three solos under 500cc and an outfit under 750cc. Most of the Germans were riding BMWs but one team was evaluating DKW 250 solos. There was no British team but Green 'Un correspondent PS Chamberlain hitched a lift on Joe Heath's Squariel/Watsonian outfit that was one of three British entries. They joined Gordon Wolsey (Triumph Speed Twin) and Jack Garty (350cc Ariel). Chamberlain reported: "Arrived at Spa, we were well looked after by van Maldegem, who drove a Norton sc in the last Llandrindod 'International', and has been the moving spirit in the Belgian part of the organisation, found our pension, and renewed acquaintances with German and Dutch friends. Next day the little town of Spa, familiar to English racing men as a past centre of the Belgian Grand Prix, hummed with the activity inseparable from the start of a big international event.



"A group of competitors at the first time check in Holland during the first day's run, which was very strenuous, no fewer than 48 competitors retiring on that day."

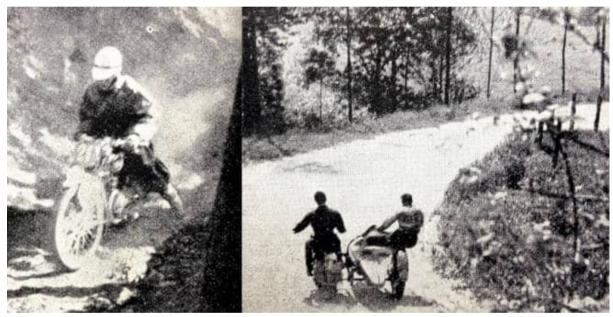
Everywhere could be heard the characteristic, hard bark of BMWs, and everywhere were Germans and German machines, much the same riders and machines—super-sports BMWs contrasting with 98cc two-strokes—as those which came to Wales last summer, accompanied by fleets of service lorries and sidecars, and swarms of managers and 'headmen'. Probably their ultra smart military contingent, with blue-grey leathers and long coats, outnumbered the others, but one has now learnt to recognise their various units: the SS, on, it seems, somewhat older models; the NSKK [National Socialist Motor Corps], crack motorised brigade, in black leathers, with a sprinkling of works riders from the Triumph and NSU factories... In a teeming down-pour the weighing-in progressed in rather a scramble—a few marshals would have improved matters—and so to bed to be ready for the 6am start, rather anxious about the possible severity of the course, though, perhaps, much of the talk was 'Scottish wind-up'...On Thursday morning it was still raining, cold and miserable, and within a mile of Spa, it became plain that this event was in a class quite different from what we understand for modern 'Internationals'. A steep, greasy, stony hill, prefaced by a sharp hairpin, led through the woods, and here considerable excitement occurred, the failures being pounced upon by Belgian soldiers and pushed to the summit. Joe Heath made a really splendid climb on the 1,000cc Ariel add earned a loud cheer, and our solos were also very good. H'm, I thought, this is going to be pretty exciting. Too exciting, for almost immediately we were directed into



"EJ Heath (1,000cc Ariel sc), with PS Chamberlain in the sidecar, storming up the 'Chemin de la Roche'. He was the only sidecar man to get up this track unaided. (Right) G Wolsey (349cc Triumph), watched by an interested group of spectators, leaving a time check at Rimberg, in Holland."

Denton Moor itself, or its exact replica. [Denton Moor was a feared section of the Scott Trial; word-search 'Denton' in 1929 for a detailed description and a heart-rending poem—Ed.] For what seemed miles we charged through horrible mud baths, occasionally sticking and having to heave the outfit along. Forgotten completely was the 'International' axiom of no outside assistance. Everyone helped everyone else, and spectators willingly lent a hand. Emerging at last, we at once entered an even longer and fiercer slough of despond. Although we gained a vicarious pleasure in becoming bogged just behind 'Il Maestro', Kraus, who had started 2min ahead of us, we were in bad trouble, for our chassis was far too low, and again and again we dug into a morass, or sank in enormous ruts. Heroically, Joe hauled and lifted and heaved again, virtually, I fear, unassisted by myself. Heavens knows I am no athlete, and very soon I was completely all in. Wolsey, who had taken a toss—how he longed for 'comps' back and front instead of 'standards'!—and had had to change plugs, arrived at the check just within his allowance, approaching the village at a solid 85mph! Garty, an earlier number, less troubled by the general shambles, did very well indeed, but we—together with 75 others—were sadly late. Nor did matters greatly improve. There was one vile section, of only 11km, in which we again and again assumed curious angles in the pit-like ruts; frequently we had to hoist our heavy outfit back to a level keel, and the clutch was on the point of burning out. A chassis member was knocked into the wheel; the sidecar began lovingly to nestle against the Ariel. We were running later and later, and eventually were forced to retire, although no blame attaches to Joe, who motored an outfit which, fine for an 'International', was too near the floor for such Scott Trial stuff, marvellously well. Had he had a 'one-day type combination—and a 'real' passenger: every German ballast appears an acrobat—no doubt he would have got

through...Meanwhile the frightfulness proceeded. Just before lunch, at Beauraing, the Dutch Harley-Davidson, driven by the hefty Wuys, became so hopelessly bogged that a team of horses was necessary to extricate him; while when a rider like Fijma (Ariel) can retire through exhaustion, after a section which clogged front wheels with trials guards, it can be gathered that conditions were 'formidable' indeed, and several hills would have been regarded as finds by the Edinburgh club itself...Friday's run was an anticlimax. The course went into Holland, but, alas, route marking almost entirely collapsed in the early stages—partly, it was said, because signs had been torn down for 'political' reasons—and everyone became hopelessly lost. Parties were arriving at the Valkenburg check from all sorts of directions, at all sorts of times, and everything was chaos. After considerable fireworks, the organisers did the only possible thing, 'washed out' all time before lunch, where an extra hour was allowed to sort things out. After, the run back to Spa was uneventful and, at last, the sun shone.



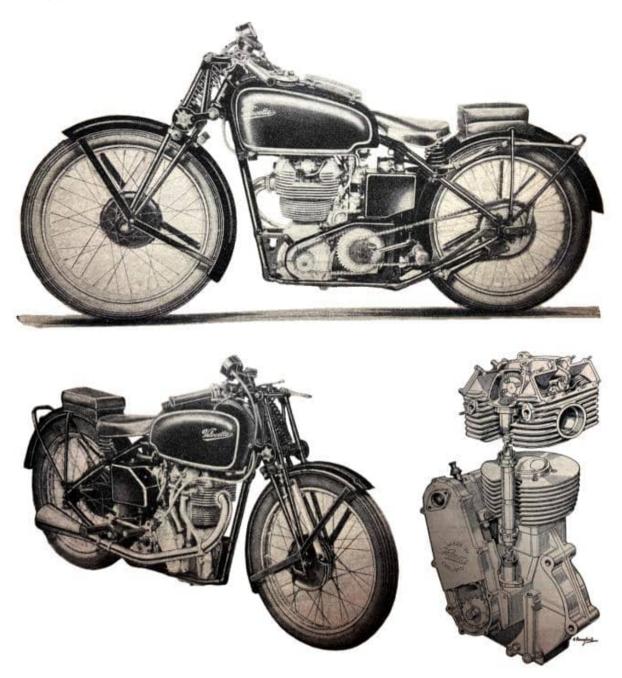
"JC Verkerke, on his 125cc Villiers-engined Eysink, tackling a difficult hill near Tilf, in Belgium, on the first day. (Right) G. Edyson (600cc FN sc) and passenger doing a neat piece of swervery on the second day's run."

Another victim of the lack of marking was poor Garty. Riding in a block of direction-card-searching competitors, the man in front suddenly applied his brakes and Jack rammed him well and truly, pancaking the front wheel of his Ariel. So ended a very stout effort by a most competent performer, which left Gordon Wolsey, speaking most highly of his Triumph, the only British runner, albeit, a runner of the first order, for on all sides praise was heard of his fine riding. Saturday's trip into Germany was expected to be severe, and severe it most certainly was. Practically the whole of the distance was over greasy lanes, fields and rough cart tracks, negotiating which, in torrents of rain, allowed even the best riders little or no margin at the checks. In contrast to yesterday, however, the organisation was superb. At Monschau, the frontier, a double rank of storm troopers

cheered every rider as they passed the special Customs post established for the trial, and all along the way the marshals accorded the riders a Nazi welcome...After a really arduous morning, with never a moment's relaxation, a morning of slipping off the step camber into ditches and off sliding off on greasy bends, a splendid lunch was ready at the famous Nurburg Ring, where the special attendant delegated to Wolsey looked after him splendidly, even drying his soaking clothes. After a circuit of the Ring, more he-man rough stuff had to be tackled. Mercifully, the, weather cleared, but it was a weary and bedraggled brigade which returned to Spa. To the delight of our party, Wolsey came through with flying colours—though in one check he had fallen five times. As his Triumph is cracking splendidly, there seems no reason why he should not successfully complete the final speed test to-morrow, Sunday morning. Poor Pé, the Belgian Gillett rider who had been doing so well, hit a lorry coming into Spa, and kaput went his clean sheet. Only 20 were still unpenalised and nearly 70 had retired, 19 of them to-day figures which tell their own story! The BMW 'Trophy' team was placed in an unassailable position when Fruth, the driver of the sidecar in the other leading German team, pushed his outfit into the depot late. Next morning he did not appear at the speed test at Francorchamps—and that was that. The speeds required for this were quite easy for all classes, but the weather, especially during the second heat in which Wolsey ran, was vile, a cold, steady drizzle falling from a leaden sky. However, Gordon did his time satisfactorily and won his Gold with no marks lost. Far the fastest were Meier and Forstner on their BMWs. International Results. International Challenge: 1, Germany 'B', G Meier, J Forstner, P Struwe and L Kraus (sc) (all on BMWs). Coupes des Trois Federations: NSKK Sachsen, R Schertzer, W Fähler, R Dernelbaner (all on DKWs). Manufacturers' Team Prize: NSU team, F Walter, H Dunz, P Ottinger). Gold medals were awarded to the best 20%; 24 went to Germans. None went to the Belgian or Dutch contingents but Gordon Wolsey brought one back to Blighty.

"THE NEWS THAT THE KTT Velocette is to be re-introduced will be welcomed by many motor cyclists, for this famous model was, in its old form, a favourite among racing and sporting riders alike. The new KTT is based on last year's racing machines, and to all intents and purposes the engine and gear box are identical with those used in the machines which Stanley Woods and EA Mellors rode in the TT last year. The engine closely resembles the TT job, the only difference being that the cylinder head fins have rounded instead of square corners. The new engine is produced in the 348cc capacity only. It has a bore of 74mm. and a stroke of 81mm, and its compression ratio, for use with a 50/50 petrol-benzole mixture, is 8.75 to 1. An aluminium-alloy cylinder barrel with a special iron liner is employed, and the slipper-type piston has two compression rings and a slotted oil-control ring. The steel connecting rod, which is heavier than formerly, has the small-end bronze bushed. As in the TT engine, the cylinder head is of aluminium alloy with an integrally cast rocker box and inserted valve seats. The overhead camshaft is driven by bevel gears and a vertical shaft, and the entire valve mechanism, including

the hairpin valve springs, is fully enclosed. Incidentally, the inlet valve is of larger diameter than the exhaust. Adjustment of the tappets is carried out by rotating the rocker spindles, which are eccentrically mounted. Oil is fed by a pump to a filter situated behind the magneto chain cover and thence via three jets to the main bearings, the upper camshaft bevels and the cams."



"The new KTT Velocette shows its TT breeding in every line." (Right) "Details of the 348cc overhead-camshaft engine fitted to the new KTT Velocette."

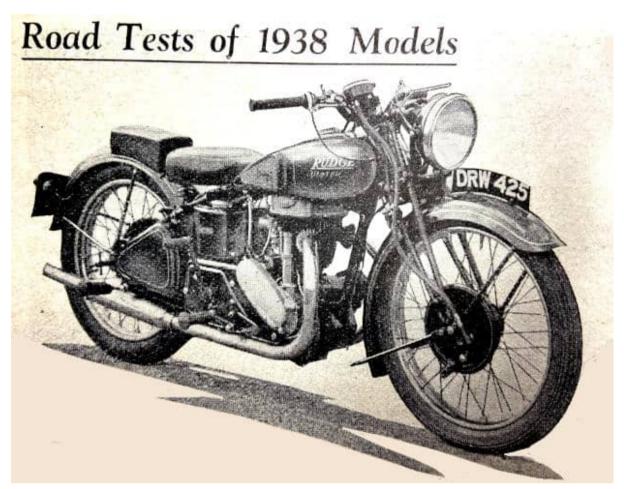


As a reminder that tyhe Hall Green lads could also build exceptional lightweights, the GTP two-stroke 250.

"WE LIVE AND LEARN. I have a couple of tyres which have worn rather smooth, though still devoid of cuts and serious wounds. Realising that the long spring drought would certainly be followed by plenty of rain, and that these conditions create special risks of skidding, as the roads after a drought carry lots of rubber dust and oil, I decided to have these covers 'sliced', and to test for myself whether sliced treads grip a greasy surface as adhesively as their devotees claim. I am happy to report that the grip is Al. But to my perplexity and surprise the sliced treads in conjunction with certain types of wet road surface emit a curious whistling noise, quite unlike the sizzle of any standard tread."— Ixion

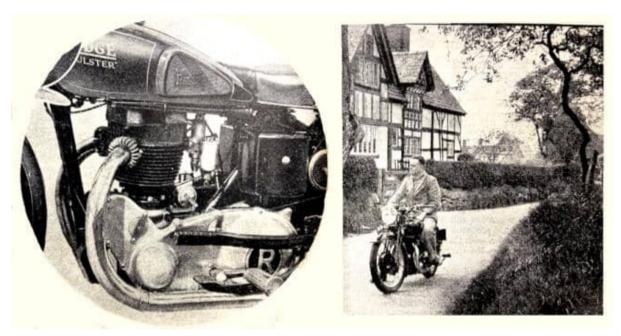
"BEDFORDSHIRE POLICY ARE making increasing use of photographs as corroborative evidence in proving cases of dangerous driving and other traffic offences, but in some quarters it is being questioned whether, such photographs really do tell the truth. Half a dozen patrol cars in this county are fitted with cameras which enable photographs to be taken at speed."

"THE FOLLOWING RESOLUTION was adopted unanimously by the General Council of the RAC recently: "That this Council is of the opinion that in order to reduce the toll of road accidents it is desirable that positive obligations of a reasonable character should be imposed on all types of road users, including pedal-cyclists and pedestrians, and, in particular, that all pedal-cyclists should be registered and should carry rear lights and be subject to penalty for careless, riding, and that the movement of pedestrians across the roadway at controlled crossings should conform to traffic signals."



"Vastly different in appearance from the first 'Ulster Rudge, the 1938 edition still possesses many of its 1929 predecessor's characteristics, such as outstanding performance and fine road holding."

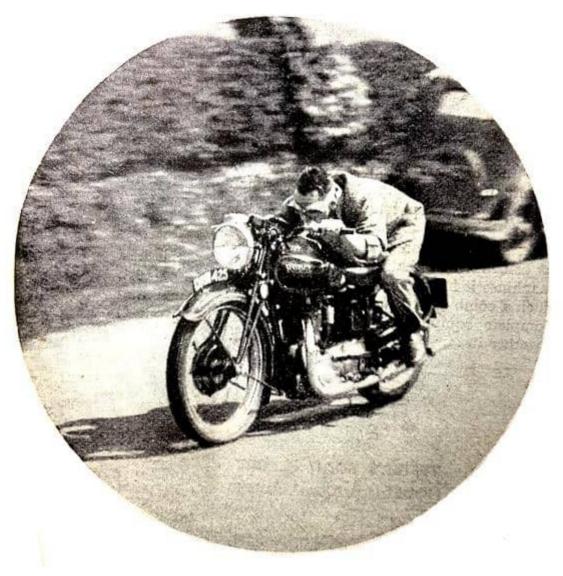
"IT IS HARDLY NECESSARY to make any introduction to the Ulster Rudge. Famous for years as one of the highest performance production machines, the 1938 edition still lives up to this enviable reputation and, in addition, has a number of refinements and modern improvements, which make it a most likeable mount to ride. Perhaps the most marked of these is the high degree of silence, both mechanical and exhaust, and the complete absence of any oil leaks after 350 miles. Coupled with this the Ulster produced a mean speed of 89mph and the speed for the standing quarter-mile of 51.72mph is the fastest yet obtained by Motor Cycling during the 1938 road tests on a 500cc machine. Seldom is such a combination of good qualities to be found in any one machine, and our tester reports that it is a difficult matter to offer any criticism. During the time the Ulster was in our hands it was used for fast main-road runs and a fair quantity of town work; two widely different duties which proved it to be a real dualpurpose model. Comfort was of a very high order, the controls, footrests and saddle position being adjustable to suit riders of all sizes. All the above-mentioned items were set correctly for the tester before leaving the Rudge factory, only one small modification being made subsequently to the foot change. This is mounted on splines and can be set to a very fine degree, which gives real nicety of control. The saddle was large and produced no feeling of fatigue even after a 200-mile spell. Handling under all conditions was superb; a really strong point in favour being the way in which it could be slung round corners of all types; fast, slow, rough or smooth, the Ulster always retained the 'on rails' feeling. Very little damping was necessary on the front forks, in fact, no damping at all produced about the best result under normal conditions. If the damper was 'nipped' up at all the tail end seemed inclined to bounce, and a certain amount of shock could be felt through the handlebars. Even when travelling flat out the steering damper was found to be unnecessary and accordingly remained right off the whole time. Mere mention of this machine brings the word 'performance' to any motorcyclist's mind, so we will give some of the facts and figures which were obtained when a visit was paid to the measured ¼-mile. A maximum speed in top gear of 92mph, and a mean timed speed of over 89mph leave little to be desired. In the gears the results obtained were equally good. Third and second gears returned 84mph and 74mph respectively. At both these speeds the motor was turning over pretty quickly for a 500, but throughout the speed range no vibration could be detected.



"A near-side view of 'the works' showing the excellent lifting handle and the polished aluminium primary and dynamo drive case. Note the strong and neat carrier beneath the saddle which completely protects the battery. The position of the electric horn can also be seen." (Right) "Although a super-sporting machine in every sense of the word, the Ulster was a very pleasant touring mount and the power unit was smooth throughout its range."

We have made a brief mention of the acceleration, which was outstandingly good. At the bottom end of the scale, the motor, with the aid of the transmission, gave a really woolly feeling and in spite of the high gear ratios the minimum non-snatch speeds were uncommonly good, 18, 15 and 12mph being the figures in top, third and second

respectively. When discussing the high maximum the touring point of view is apt to be forgotten. On a good main-road run the most comfortable cruising speed lay round about 65mph. This enabled some very high average speeds to be put up, for with a further twist on the throttle this rate of knots could be maintained up main-road hills. For normal fastish travel it was best to change up from second to third and third to top at 40 and 60mph respectively. Naturally, when indulging in ordinary slow-speed touring these speeds were considerably lower, but the engine was so smooth and flexible at all times that the cruising speed could only be determined by the rider's frame of mind, the scenery, or the general road conditions. Riding as stated above the fuel consumption remained very consistent at about 70mpg. Separate and accurate tests were made in town and country conditions which showed 66mpg and 74mpg; all of these figures are markably good for a really high-performance 500. The oil used was negligible, the level dropping only about 1/4 in. after 300 miles; further-more, any oil which was used was certainly not due to any external leaks. The whole engine and gearbox were spotlessly clean, the only leak at all being from the oil tank filler cap due to the level being too high; when this had been reduced to about an inch below the neck, all the leakage stopped. From the quietness point of view the Ulster deserves full marks. Mechanically, it was one of the quietest engines we have had on test, and the exhaust silencing has been dealt with in such a manner that it is really quiet except when the 'urge' is turned full on; even then there is no bark attached to the noise, and it is doubtful whether anybody could possibly take umbrage. The gearbox was silent on all the ratios in addition to being very pleasant to use. When first taken over the change down was a shade uncertain, but after some real usage this appeared to wear off and then worked well. The change up was always beyond criticism. Starting was very easy both hot and cold. In either case the ignition had to be set at about half retard, and when cold the carburetter gave the best results after being flooded. When hot this was unnecessary, and one good hearty kick produced the



"At

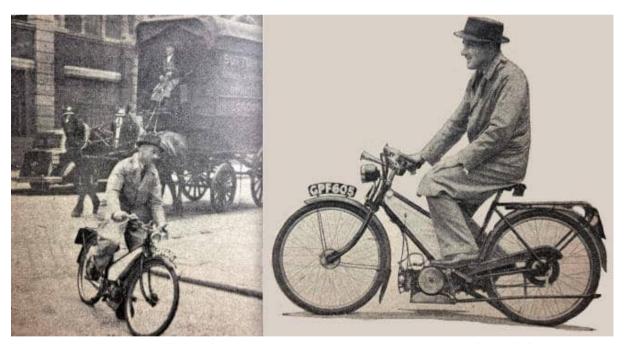
speed on the Rudge. It proved to be a fast motor par excellence and the acceleration was outstandingly good."

desired result after easing the compression with the valve-lifter. First thing in the morning using the decompressor enabled the valve-lifter to be left alone. The well-known Rudge coupled brakes were delight-fully smooth in operation and very powerful. On the actual brake test it was found possible to stop from 30mph in a matter of 32ft. The additional front-brake lever was used to obtain the above figure. Ease of maintenance is obviously a matter which has received the close attention of the manufacturers. The valve clearances are set through the inspection cap in the off side of the valve enclosing cover. The adjusters themselves are placed at the push-rod end of the rockers. Easy, adjustment is provided for the primary chain by moving the gearbox with a cam; this principle is also employed to tension the rear chain, both operations taking a very short time. Another feature is the quickly detachable rear wheel which can be removed while the chain and brake drum remain undisturbed. Easy access is provided to this with a detachable rear mudguard. The hand-operated central stand was

delightfully easy to operate and at the same time gave a really firm support even when the model was propped up on rough ground. The sensible dimensions of both the oil and fuel tank filler caps made the easiest possible job of replenishing: also the extended gearbox filler was very conveniently situated. With the days as long as they are very little night riding was indulged in, but one short journey was sufficient to show that the head lamp possessed a powerful beam. also that the dipper switch was well placed and positive in action. There was no cause to use the tool kit during the test, but it it was examined and sundry spanners applied to some of the most commonly used nuts. They appeared to be amply strong for their job. Talking of equipment, it would be as well to remind our readers that the Rudge is a fully equipped machine with no extras. Standard specification includes an illuminated 120mph Smith's chronometric speedo-meter, lights, licence holder, horn and rear mudguard pad. At the conclusion of the test we can say without fear of contradiction that the Ulster is one of the best machines it has been our good fortune to have on test. Such a combination of good handling, performance, and complete equipment is seldom to be found grouped together in one model. The price is £82."

"THERE ARE NOW SEVERAL different types of motorised bicycle on the market, most of which it has been my good fortune to ride. During the last few weeks I have had in my stable a 98cc Villiers-engined Raynal—and a very interesting little job it is. It has several unusual features, chief of which is a sprung front fork. There are also a clutch, normal pedalling gear and a back-pedalling brake which is designed to avoid accidental application when the engine is in use. On machines of this type a spring fork is generally considered a luxury, but at the speed of which the Raynal is capable, it is very nearly a necessity. A short, laminated spring is employed, which allows a fore-and-aft movement of the fork blades. This movement can, to a certain extent, be adjusted by tightening or slackening the shock absorbers. A back-pedalling brake is an advantage on a motorised bicycle because it reduces the number of handlebar controls. However, this type of brake normally has the disadvantage that the slightest backward movement of the pedals applies the brake. On the Raynal, a hub-type brake is fitted, and this is operated by lever and rod from the pedals. The lever, which works on the ratchet principle, engages with the pedals only when the offside pedal is just past the horizontal position behind its crank. With this arrangement it is possible to ride many miles and shift the position of the feet without fear of the brake being accidentally applied over bumpy surfaces. Another feature of the Raynal is its open-type frame—an obvious advantage for riders of the fair sex. The handlebar controls consist of a clutch lever, with a trigger lever to keep the clutch out when required, a decompressor for starting and stopping the engine, a throttle lever and a front-brake lever. Attached to the fuel tank is a small knob, which operates a simple form of carburettor choke to facilitate starting from cold. There are two ways of starting the Raynal. One can either pedal off and, after gaining sufficient speed, let in the clutch, or one can paddle off—both ways are equally

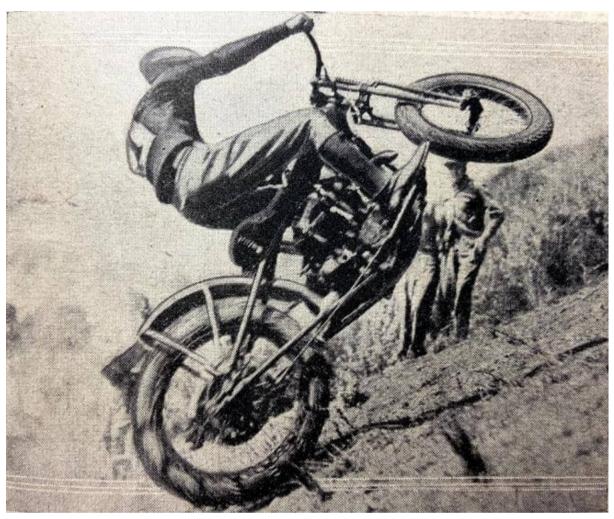
simple. When starting from cold it is both necessary to flood the carburettor and to use the choke; after 100 yards or so the choke can be taken out. The 98cc Villiers engine pulls away from walking pace to its maximum without a trace of snatch, and the drive is taken up so gently that the veriest novice need have no fear of the machine running away with him. Such flexibility, coupled with extremely smooth running, inspires confidence at the outset. And, above all, the little engine is exceptionally quiet. The drive from the engine is taken through a counter-shaft and clutch to the rear wheel by a chain on the near side of the machine. On the off side is the normal pedalling gear. The two methods of transmission are quite independent. In many respects the Raynal handles in exactly the same way as a cycle. With the drive disengaged by leaving the clutch withdrawn, the machine can be ridden as a cycle. The pedalling gear is not unduly low—in cycle terms the gearing is 60, or in other words one revolution of the crank turns the rear wheel through two complete revolutions. Because it resembles a cycle in many ways, the Raynal is extremely manoeuvrable in traffic, either with the engine or without. When traffic or other conditions demand, the engine can be throttled down to walking pace; if a slower speed is desired the clutch may be slipped slightly while the pedals are used. Even from a standing start the Raynal will accelerate without the rider



"In the heart of London's traffic or on the open road the 98cc Raynal is a willing and excellent performer." (Right) "For a rider of medium height the Raynal is a comfortable machine. Ample provision is made for the adjustment of both saddle and handlebars."

pedalling. On steep hills it is sometimes necessary to assist the engine with a little light pedalling, but for the most part the pedals can be forgotten. The maximum speed of the Raynal is between 28 and 30mph and it can be ridden on full throttle for mile after mile without the engine showing any signs of tiring. I have ridden the Raynal on several occasions be-tween my home in North Surrey and the office, through some of London's

densest traffic. By train this journey takes me 45 minutes from door to door. By road, a distance of 13 miles, it usually takes me 35 minutes on a fast solo. On the Raynal it takes only five minutes longer. On these journeys I was able to appreciate the advantages of the sprung front forks. But I should have welcomed a larger and more comfortable saddle. Another small criticism that can be made against the Raynal is the absence of a chain guard on the off side. A guard is fitted over the transmission chain, but when the machine is being pedalled the off-side chain is apt to trap the rider's trouser leg. From an economical viewpoint the Raynal is an exceptional little machine. It covered just over 105 miles on one gallon of petrol mixed with half a pint of oil. This fuel consumption was measured on the runs to and from the office, ie, under traffic conditions. Throughout the time the machine was in my possession the engine remained clean except for a slight film of oil in the vicinity of the carburettor; this was probably due to blow-back, which was noticeable when accelerating from a slow speed. The Raynal is just as happy on full throttle on the open road as it is pottering round town streets. At all speeds the engine is remarkably free from vibration. Restarting with a dead engine on a steep bill calls for a certain degree of skill, but on account of its exceptional manoeuvrability (the machine can be turned in its own length) it is far simpler to start the engine down hill and then turn the machine round, pedalling when and as required. The brakes are in keeping with the excellent standard of the rest of the machine. They are both light in application and efficient in use. The rear brake in particular is surprisingly powerful; it is applied with the right foot through the medium of the pedals. Incidentally, a feature of the Raynal is that the chains can be adjusted independently. The equipment includes Villiers flywheel-dynamo lighting, 26xl¾in Dunlop tyres, 'Shockstop' handlebar grips and a fuel tank with a capacity of 11% gallons. Yet the price of this efficient and economical little machine is only £18 18s."



"A study in equilibrium: The famous American slant-artist Windy Lindstrom in action at Los Angeles"

"JAPAN NOW HAS approximately 57.000 motor cycles in use."

"A MANUFACTURER OF a famous multi-cylinder machine reports that sales of the model are 61% higher this year than last."

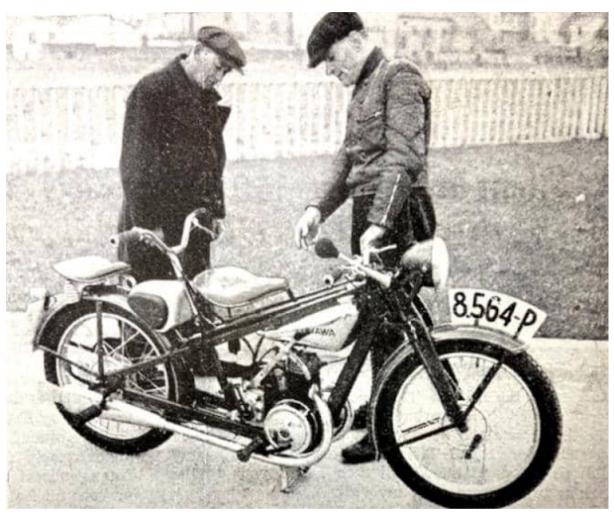
"A CAR CLUB RECENTLY held its annual 'criminal hunt', in which competitors sought for clues putting them on the trail of a gang of American desperadoes."

"MOTOR CYCLES WERE involved in only 14% of the road accidents in the Isle of Man last year, the lowest percentage for 12 years."

"IT IS REPORTED that riders buying new machines in Germany are now asked to sign an undertaking that they will surrender the machines at military depots in the event of mobilisation."

"THE ARIEL COMPANY ships its machines to no fewer than 68 different nations. This means that catalogues have to be printed in many different languages, ranging from Lithuanian to Siamese."

"Five-hundred AA patrol men have joined a Supplementary Reserve of the Corps of Military Police."



"Recently, in this journal, we reported the fact that the Czechoslovakian military authorities were using 'tandem' motor cycles for training army riders. Here is a Jawa of extra long wheelbase, powered by Villiers and made for two."

"NO MORE GLORIOUS day could be imagined than last Sunday, when the Scott Rally was held, and members of the London, Manchester and Sheffield Scott Clubs converged on Donington Hall. There was a representative gathering, and nearly every type of Scott motor cycle was to be seen by the time the assembly was complete. Old Scotts, young Scotts, little Scotts and lordly Scotts were there. Some were resplendent in modern chromium and coloured enamels, and others were—and the owners will forgive the description—a rather dingy black, tinged with the stains of thousands of miles of travel. But all were the pride of their riders. and the older the machine the greater seemed the pride. The prize for the oldest machine in its most original form went to Mr Reed, of York, with a 1919 two-speeder; the only change from the original equipment was to be found in the front wheel, which now boasts an expanding brake. As an instance of the enthusiasm possessed by all motor cyclists (and Scott owners, perhaps, in particular), the prize for the rider travelling the farthest distance to the rally

went to Mr Short, who had come all the way from Eire. His total mileage was 323. For ingenuity in devising and including gadgets in the equipment of a motor cycle the palm went to Mr Jones, of Liverpool. His extra fittings included the spring frame, the rear mudguard valance and stop light, tiny parking lights front and rear with an independent switch, wire stone guards on his head lamp, a fog lamp, bumper bars, a fire extinguisher and a radiator thermometer. During the afternoon a gymkhana was held. All the events were hotly contested. Frank Varey was there, and he put in some good work. He thrilled the crowd with an unusually hectic and rapid demonstration run. After tea the prizes were distributed at the Hall."

"I AM WRITING to correct a wrong impression that has been created by the newspapers re my crash at the recent Crystal Palace meeting. The cause of the trouble was another competitor who ran into my passenger on the Link Bend, when the latter was hanging out over the sidecar, nearly knocking him off. The front wheel of this machine then hit my sidecar wheel, causing me to get out of control and I hit the wall surrounding the pond. The rider of the machine in question approached me in the Paddock after the race and told me that he had been unable to stop and could not help hitting me. The machine is badly folded up but fortunately my passenger and myself are not seriously hurt.

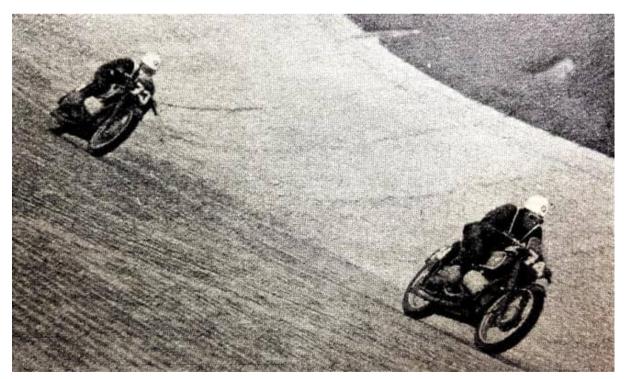
## AH Horton."



"A *Motor Cycling* artist's impression of AH Horton's spectacular crash during the sidecar race at the recent Crystal Palace meeting."

"DO MEMBERS OF THE Government motor at week-ends? We cannot believe they do—at all events not on fine Sundays in the summer. How otherwise can be explained the present road policy? The Ministry of Transport took over the trunk roads in April of last year, yet what has been done? The answer from the car owner's and motor cyclist's point of view is, 'Little or nothing!' Progress is painfully slow. It the reason is that all available money is required for re-armament, the Government should say so and the motoring world would endeavour to be patient until such time as there is the money. On the other hand the Minister of Transport himself has said that there is no question of lack of money. Then why is there the delay? Parliament has risen; can we hope that members will make a point of motoring at week-ends—of learning at first hand the congestion their constituents suffer?"

"THE 250cc brigade should read, mark, learn and inwardly digest our recent leaderette based on the Bentley engineers' maxim that 75-80mph is the highest safe continuous speed of a car which can touch 100mph. No commercial engine is built to run continuously at or near its maximum revs. This moral was hammered home in Italy when the first autostrada was opened. Bright lads went on to it, hooted with glee, put their foot right down and kept it there; and the towing gangs were requisitioned daily to haul dead cars off the concrete. I don't know if the wee 98cc brigade have learnt this lesson yet, but I have often noticed that when a novice gets the real hang of his first 250 and starts scrapping hard on it something snaps."

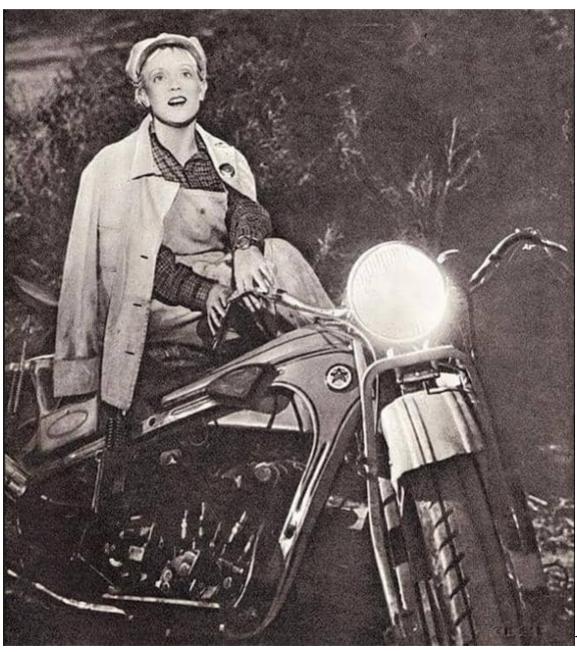


Germany's sidecar driver in the International Trophy Team—L Kraus—is also a fast soloist. Here he is leading K Gal at the recent Amis meeting on their BMWs. Gail eventually won at 107mph."

"YOU KNOW, OF COURSE, of the present search for crude oil in the British Isles. After Anglo had made their first boring in Sussex and been rewarded merely by a deep, dry hole, the machinery was moved to Scotland. Traces of oil and gas were found at various depths, and drilling continued to 3,857ft in the hope of finding something better. Oil was found a 1,733 to 1,760ft and the well is found capable of producing 8 to 10 barrels of crude oil a day—oil that contains some 12% petrol and 12% kerosene."

"AT MANCHESTER ASSIZES, damages amounting to £5,500 were recently awarded the pillion passenger of a motor cycle against a car driver, sequel to an accident."

"RUSSIA PURCHASED British motor cycles over £1,050 last year." But some were home-brewed...



PMZ-A-750 was the first heavy motor cycle made in Russia; it was in production from

1934-38 and nearly 5,000 were produced in Podolsk in the South Moscow. And yes that engine was clearly copied from a Harley 45.

"A PROPOSED round-the-world tour for car drivers has been abandoned owing to lack of entries."

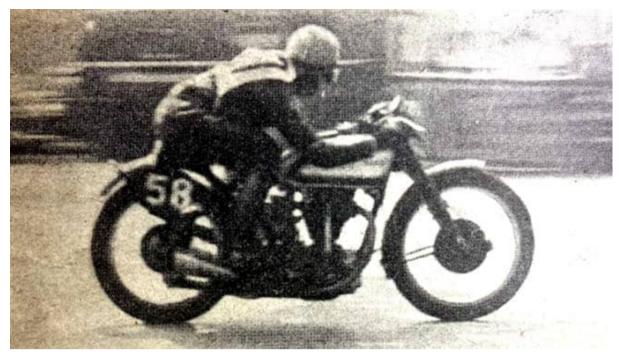
"THE AUSTIN SEVEN racing engine can attain a speed of 10,000rpm on the track, and it has been bench-tested up to 14.000rpm."



"A Party of members of the Castle (Colchester) MCC setting out on a run."



"GREAT BRITAIN AND GERMANY shared the victories in the Grand Prix of Europe, held at Hohenstein-Ernstthal, in South-eastern Germany. The racing was inclined to be dull, for the winners of each class established themselves from the first lap in all three races and were never seriously challenged. Nevertheless, the vast crowds of Germans (some 300,000) who thronged the sides of the road remained enthusiastic throughout a long day in broiling sunshine. They had come to the course from all parts of Germany, and in the temporary vehicle parks on the autobahn skirting the circuit there were thousands of motor cycles. The course has been slightly altered from previous years. The start-and-finish is on the straight which runs alongside the autobahn, and the acute hairpin bend by the old start has been replaced by an easier, banked turn. This course in Saxony is a very sporting one, for it contains many tricky and twisty sections, and is far from flat. In view of their recent successes, it was not surprising that the DKW 250s were present in force on their home ground. But it was disappointing that only two other machines of different make came to the starting line. At the last moment the Italian Benellis had



"Walter ('Snow White') Rusk, back in the Norton team after a long absence with a broken arm, showed that he has lost little of his old dashing style. This picture shows him well down to it when lying second to JH White (Norton) In the 350cc race."

scratched, leaving only the DKWs and two private entrants. The race was almost a foregone conclusion, and when Kluge (DKW) came round at the head of the pack of DKWs everyone nodded their heads, After seven laps the order was Kluge, Petruschke, H Drews, and E Thomas, all on DKWs. When Thomas passed through the start he was heartily cheered, for the crowd were quick to appreciate foreign skill. But on the next lap he retired with clutch trouble. After Thomas's retirement Kluge and Petruschke drew ahead of the rest of the field, and Petruschke, by magnificent riding, gradually overhauled Kluge. On his 12th circuit he broke the lap record, and soon overtook Kluge to take the lead. On the pit stop, however, he lost it again, for Kluge was slicker by several seconds, and from then on Kluge, now with the European Championship well in his pocket, was never troubled. When the field had been flagged in, the winner and the first private owner to finish were driven round the course in the new German 'Volkswagen' cars, together with Herr Hühnlein and FICM stewards Nortier and Ball. For the 350cc race there a larger and much more varied field. JH White and Walter 'Snow White' Rusk were hot favourites on the Nortons, but Winkler and Wünsche, with their DKWs, also had their supporters. Other stars competing includes Mellors (Velocette), Fleischmann (NSU) and Grizzle (Sarolea). They were lined up on the road in nine rows of four, with the DKWs and Nortons in front. Red, amber and green lights and a maroon were used for starting, and as the lights changed there was a terrific struggle for leadership among the huge field.



"The scene at the start of the 500cc race. There is tension in the air. In front are No 1, G Meier (BMW); No 6 Serafini (Gilera); No 2, L Kraus (BMW); and No 3, the new BMW man, M Schneeweiss."

The Nortons seemed slow in getting off the mark, while Winkler and Wünsche were in the saddle in a jiffy. For nearly four minutes there was comparative quiet, apart from the buzz of the crowd. Then, coming down the hill a good way from the start could he seen the leaders of the field. Into the difficult Oberwald S-bend they went, then out on to the straight up to the start. As they drew near it was seen that a green helmet was in the lead—JH White (Norton). Behind were Wünsche (DKW), Winkler (DKW), WF Rusk (Norton), K Bodmer (NSU), and EA Mellors (Velocette), with only yards separating each man. With four different makes in the first half-dozen it looked as though there would he a good scrap. White, however, steadily increased his lead on each lap. Rusk had more difficulty in getting past and shaking off the DKW men. After three laps he had sandwiched himself between Wünsche and Winkler, and on the next lap he had slipped in front of Wünsche to take second place. On this lap Fleischmann, with the new NSU, toured in with the steering head adrift. Mellors started to chase the DKW men on the fifth lap, and he anti Wünsche tore through the start neck and neck. It was a marvellous sight that brought the crowds to their feet, and as the two men disappeared up the straight it was seen that Mellors was slowly drawing ahead. Meanwhile, White was steadily building up a good lead, and on the ninth lap he put the lap record up to 81.71mph. On the following lap Rusk, with a 20sec lead over the first DKW, skidded and fell at



"After chasing Meier in the 500cc race for several laps, Serafini, the Italian Gllera rider, draws into his pit with an oil leak. Here is his attendant making an investigation, while Serafini and designer Taruffi reach for an oil container."

Rowley's Corner, not far from the start. No vital damage was done, but the nearside footrest hanger was bent into the clutch sprocket, and poor Rusk had to borrow a heavy hammer from a spectator before he could move it. So much time was wasted that he decided to retire. This left White (Norton) in the lead well out on his own, with Winkler (DKW), Mellors (Velocette) and Wünsche (DKW) scrapping hard for the next places. The scrap continued until the pit stops were due. White came in and filled, and got away comfortably, So did Mellors, but in filling his oil-tank his pit attendant overdid it and oil was spilt on the rear wheel. The oil caught Mellors napping, and he slid to earth heavily on one of the fast bends. He returned to his pit, straightened things out, and got away again, but the stop had cost him many minutes, and Winkler and Wünsche were left in second and third places. Behind these men there had been many retirements. Seizures, fork trouble, valve trouble, minor tumbles—all caused riders to drop out. W Hamelehle, the third official DKW rider, crashed on one of the bends in Hohenstein. Machine and rider somersaulted, and Hamelehle came down on the kerb, breaking several toes. White, in the lead, was never troubled, and at three-quarter distance he had over two minutes in hand. Eventually, he got the chequered flag, to secure a deservedly popular win, with the DKWs filling second and third places. Naturally, the 500cc race was eagerly awaited by everyone. With a field consisting of Nortons, BMWs, and a Gilera, as well as a number of fast private owners, there was every prospect of a good race. Daniell and Frith were the Norton men, while Meier, Kraus and a new man, Schneeweiss, were responsible for BMW prestige. Serafini was playing a lone hand with the fast Italian Gilera. With the field lined up, the crowd grew quiet. First, there was the red light, then amber, and then—they're off! Meier (BMW) straightway jumped into the lead, followed by L Kraus (BMW) and Fergus Anderson (NSU). Both the Nortons and the Gilera made a bad start, but when the field came round for the first time Serafini had gone through the field and was close behind Meier. The crowd rocked with excitement

as Kraus (BMW), Schneeweiss (BMW), Frith (Norton) and Daniell (Norton) rocketed through in pursuit of the two leaders. On the next lap the order was the same, except that Schneeweiss had dropped a couple of places. It was noticed, however, that the Gilera was smoking badly. On the third lap the Italian pulled into his pit with his off-side boot and the off-side of the machine covered in oil. After a short stop he was away again in fifth position. During Serafini's stop both Frith and Daniell had overtaken Kraus. Kraus was riding a heroic race, for only a few days before the meeting he had come out of hospital after a severe operation on his throat. Serafini also overtook the German on the twelfth lap, but a few laps later Italian hopes fell completely when Serafini toured in with a broken clutch wire. Frith and Daniell could make no impression on Meier, who was riding the race of his life. He broke the lap record on his third circuit, and on each lap he gained on the Norton pair. Just before half-distance Daniell overtook Frith, and at 20 laps the order

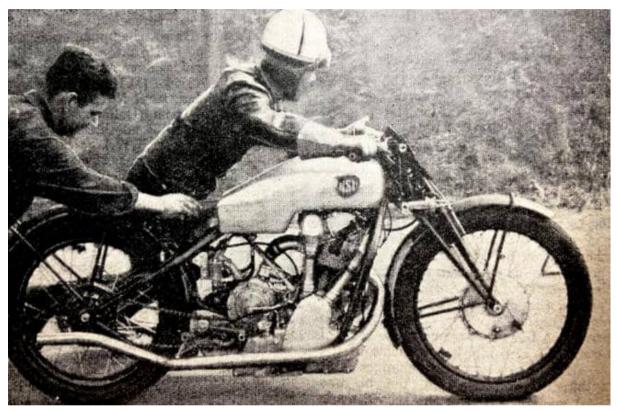


"G Meier (BMW) in record-breaking mood. Here he is taking the Notzold bend in a wide fast sweep. Note how he is outside the black mark which indicates the normal course taken by competitors."

was Meier, Daniell, Frith, Kraus. Behind these four there was a terrific scrap going on between F Anderson (NSU), W Herz (DKW), H, Lommel (DKW) and H Bock (DKW). For lap after lap these four raced round very close together. On lap 30 Anderson stopped at his pit and had a rapid conversation with his attendant. As he got away again the three DKWs went through the start, and the next time round they were in front of the NSU man. These four, however, were some three laps behind Meier, and only Frith and Daniell out of the whole field had not been lapped. But Meier was not content. He continued to thrill the crowd with a marvellous display of riding, and he smashed the lap record again and again, eventually pushing it up to 88.36mph. When he received the chequered flag the crowd nearly shouted themselves into a frenzy. After the tragic finish

of this race last year (when Jimmy Guthrie lost his life) the German crowds were unusually appreciative of this new victory. As Meier received Herr Hitler's prize for the winner, the crowd gave vent to three terrific 'Heils!'—an impressive climax to the race. Afterwards, Herr Hühnlein made a stirring speech, the German anthem was played, and slowly—but quite easily on the wide 'autobahn'—the vast crowd started to wend its way home after a fine day's racing."

The Blue 'Un reporter neglected to mention an amusing coincidence: Norton factory rider 'blond bombshell' Walter Rusk was also nicknamed 'Snow White'; BMW had a new works rider, Schneeweiss, which translates as Snow White.—Ed



"The new 350cc twin-cylinder NSU made its first public appearance at the German Grand Prix. It has a double overhead-camshaft engine, with the two cylinders inclined from the vertical. Engine, gear box and supercharger are arranged in one unit with chain drive. The supercharger gearing I may be altered to suit various conditions."

"A NEW ROAD-RACE CHAMPIONSHIP scheme is in operation this year. The F.I.C.M. has instituted a Championship of Europe based upon the results of the nine most important international meetings, namely, the TT, the Belgian, Swiss, French, German, Swedish, Ulster and Italian Grands Prix and the Dutch TT. (The Swedish event is not being held this year so only eight events count.) The marking is as follows: A win, 6 points; second place, 5; third, 4; fourth, 3; fifth, 2; and sixth, 1. The. Championship is divided into classes, namely, 250, 350 and 500cc, and thus there will be the '250cc Champion of Europe' and similarly in the other two classes. In addition, the rider who gains the highest number of points in one class will be declared the Champion of Europe. This

rule is of an experimental nature and may be modified another year—perhaps so that the rider with the highest aggregate score is the winner. Should there be a tie the rider with the higher place in the Grand Prix of Europe (this year the German event) will be the Champion of Europe. Up to last week-end the positions were as follows: 250cc Championship—1, E Kluge (DKW) 30; 2, B Petruschke (DKW) 20; 3, H Gablenz (DKW) 11. 35Occ Championship. EA Mellors (Velocette) 19; 2=, FL Frith (Norton) and JH White (Norton) 9. 500cc Championship —HL Daniell (Norton) 15; 2, FL Frith (Norton) 14; 3, G Meier (BMW) 12; Champions Of The Year—1, E Kluge (DKW) 30; 2, B Petruschke (DKW) 20; 3, EA Mellors (Velocette) 19; 4, HL Daniell (Norton) 15; 5, FL Frith (Norton) 14; 6, G Meier (BMW) 12."

THIS ART-DECO STYLED FRONT-WHEELED-DRIVE beauty was called Friedenstaube Motorrad (Peace Dove motorcycle) which, given the year, and its home in Munich, might seem a tad ironic. This one didn't just look radical: power came from a 600cc three-pot rotary two-stroke engine in the front wheel, which is reminscent of the 1920s Megola (though unlike the five-pot four-stroke Megola the Peace Dove boasted far fewer components but did have a gearbox and clutch). The engine and monocoque body were designed by Robert Killinger and Walter Freund respectively. A fascinating concept that came at just the wrong time; it survived the war but was 'liberated' by US squaddies.



The Peace

Dove was a fascinating concept vehice in the wrong place in the wrong time.



The Peace Dove's front wheel contained its 600cc engine, two-speed gearbox and clutch. (Right) 1945 and the Dove is about to fly to the USA. I assume he paid a fair price.



German magazines took great interest in the Peace Dove; we'll never known what the Nazis thought of the name. (Right) the engine was far simpler than the five-pot Megola's.

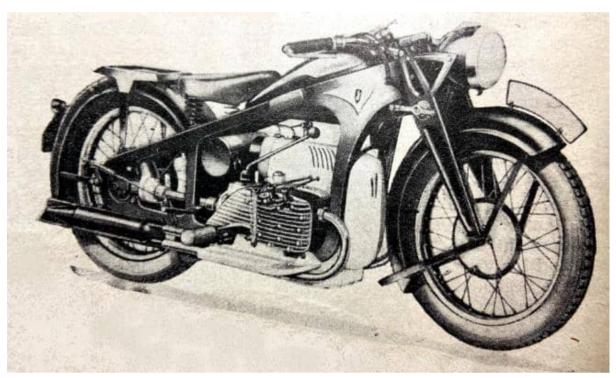
"SOME EVENTS HAVE 'atmosphere'. Everything about them seems matey or, maybe, different. Gatwick is a very good example of this. These sprint trials run by the Sunbeam Club are not very thrilling: being timed over a quarter of a mile from a rolling start or watching people accelerate up a short stretch of road one at a time is not exciting, but to anyone with motor cycle blood in his veins an afternoon with the Sunbeam Club at Gatwick is the best of good fun. First, there are the machines. There are batting irons of all shapes and sizes, and of all manner of vintages. At the upper end of the capacity scale at Gatwick last Saturday were Noel Pope's supercharged Brough Superior, Trevor Battye's old big-twin Zenith and 'Ginger' Wood's Vincent-HRD Rapide, and at the other there were four-valve 250cc Rudges like Ivor Roberts' spick-and-span job, and strangelooking JAP engines which few present-day riders would imagine to be JAPs at all. By walking round at the starting end of the course spectators are able to examine the machines at close quarters and watch the competitors and their helpers get them ready. There is a happy informality about everything. The warming-up, the getting off the mark, the gear changing, the braking after the finishing line—everything could be watched, even to a director of Vincent-HRDs adjusting the tappets of the Rapide.

Besides being interesting, the meeting is one that provides plenty of 'points'. It requires real skill to take a machine off the mark with the utmost possible acceleration, to change gear at the exactly right point in the power curve and to make those changes with the minimum loss of time. Watching and listening on the starting line was interesting. Valves could be heard to float as some riders let in their clutches, back wheels could in certain cases be seen leaving steamy, smelly, black lines on the tarmac, front wheels (like that of RE Valentine's 590cc Pullin Special) spent much of the first 20 yards skimming through the air owing to torque reaction...Gear changing in many instances was slow, and a number of competitors had not managed to get their carburation so that their engines opened up cleanly. Perhaps the most perfect exhibition of all was that of NB Pope (Brough Superior) on his first run when he covered the course in 11.87sec, the best time of the day. His getaway, gear changes and everything was perfection, but he was not fast enough to break the record made by the late Eric Fernihough; he was slower by three-tenths of a second. 'Ginger' Wood managed 12.50sec as his best. His getaway, too, was excellent—no roughness, just a straight zooming surge off the mark. His gear change worked upwards for top, and each time he changed he gave the impression that he was trying to throw the machine over the fence! Others who were very good were FJ Williams (498cc Cotton-Blackburne), F Harper, whose twin Triumph has been fitted with a pair of Bowden carburettors, N Roffey (730cc BMW sc) and FI Green (596cc Scott). Roffey, whose machine has hand change, gave a superb exhibition, while Green made as polished a show as anyone. Later it proved that Green had won the Beart Trophy for the most consistent performance with four consecutive runs in 14.84, 14.94, 14.89 and 14.79sec—a maximum variation of only 15/100sec. Next was Trevor-Battye with a variation of 0.,18sec and third HAR Earle (348cc Velocette), that man whom many think will; make a big name for himself in the racing world, with a spread-over of 0.19sec. ["...back wheels leaving steamy, smelly, black lines on the tarmac...front wheels skimming through the air owing to torque reaction..." 'sprint trials' would lead to speed trials and drag racing; welcome to the age of wheelspin and wheelies.—Ed]

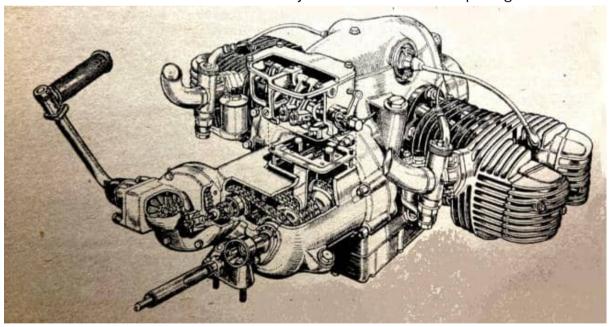


"A fine impression of the quarter-mile curse used for the Gatwick sprint trials. The rider just departing is RCC Palmer, who did very well at the recent meeting, riding a 248cc Excelsior. Runs are electrically timed to within  $\frac{1}{100}$  second." (Right) "Not a pre-war TT scene, but FV Hapgood getting down to it on his 350cc 1914 Douglass during the Sunbeam MCC sprint meeting."

"ZÜNDAPP MOTOR CYCLES are now represented in Great Britain. Pride and Clarke, 158-160, Stockwell Road, London, SW9, have been appointed distributors. The three models in which this concern are specialising are unit-construction shaft drive machines: the 500cc side-valve transverse twin, the 500cc overhead-valve transverse twin and the 800cc side-valve transverse four. Fully equipped, the machines cost respectively £99 10s, £112 10s and £119 10s. Each of the three machines named is available for examination at Pride and Clarke's showrooms. In general design the machines are similar to each other. All have neat pressed-steel frames and pressed-steel forks and are notable for their exceptional cleanliness in design. Ignition is by coil with a Bosch high-output dynamo. German Amal carburettors are fitted—two in the case of the ohv 500. An unusual feature is that the four-speed gear boxes do not incorporate pinions, but sprockets and duplex chains. A combined hand control and foot change is fitted to the ohv model, and hand changes to the side-valve twin and side-valve flat four. The kick-starter operates through a pair of bevel gears and works in line with the wheelbase of the machine instead of transversely. It is provided with a folding pedal. Other features of the machines are saddles adjustable to suit the weight the rider, speedometers mounted in rear of the head lamps, air cleaners and neat pressed-steel carriers. A 600cc ohy twin is available to order."



"Cleanliness in design is a notable feature of the 800cc 'Flat Four' Zündapp. The engine is a side-valve and built in one unit with a flywheel clutch and four-speed gear box."



"A sectional drawing of 500cc overhead-valve Zündapp. Note the unusual gear box design and the bevel gearing for the kick-starter."

"BRITISH MACHINES, PILOTED by foreign riders, were successful in the 350cc and 500cc classes of the French Grand Prix held at Nice. A Velocette in the hands of the well-known French rider R Loyer won the 350 event, and Cordey, the Swiss champion, won the 500cc race on a Norton. German machines dominated the smaller classes. Petruschke (DKW) easily won the 175cc class from Nougier (Magnat-Debon) and Dubois (Dollar). His winning speed was 54.2mph. In the 250cc race, Kluge (DKW) quickly went

into the lead and was never harried. Behind him, however, there was a lively German-Italian duel. Up to half-distance, Soprani (Benelli) valiantly stuck to second place, although hotly challenged by Petruschke (DKW). Rossetti (Benelli) was fourth. After Lap 16 Petruschke took second place from the Benelli rider, and ran home behind his teammate Kluge. Kluge won at 59.2mph. Soprani (Benelli) finished third. Eleven men competed in the 350cc event. Loyer (Velocette) took the lead in the early stages, and retained this lead through the major part of the race. R Braccini (Monet-Goyon) was second, and Simo third. Loyer's speed was 57.8mph. Cordey (Norton), the Swiss champion, engaged in a heart-stopping duel with Cora (Sarolea) over many laps of the 500cc race, and only a few seconds separated them. Cordey finally ran home the victor less than three seconds in front (speed, 60mph). Fouminet (GA ACL) was third.

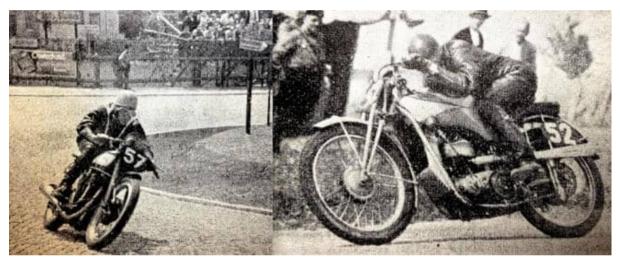
"THE 1938 EUROPEAN GRAND PRIX may well prove an historical event so far as British motorcycle design is concerned. Why? Because racing has always had a profound effect upon designers in this country ever since the earliest days of the TT when multicylinder machines were given an extra cubic capacity allowance over the singles. Despite this handicap the single with rare exceptions nearly always proved victorious. As a direct result Great Britain concentrated upon the 'one-lunger' to such good effect that we ultimately dominated the racing world. That supremacy seemed invincible until the advent during the past few years of 500cc supercharged machines on the Continent. Take the BMW. British racing managers realised two years ago that here was a machine which was faster than our own super-tuned products, but Great Britain still won because of the superior road-holding and navigational qualities of our hefty singles. Last year Germany began winning on the faster circuits, such as the Assen course in Holland, and the Swedish course at Saxtorp, but, thanks to the magnificent riding of the late Jimmy Guthrie, Freddy Frith, Stanley Woods and other great jockeys, we were still supreme on the tricky courses in Belgium, Germany and, of course, in the Isle of Man. Germany admittedly won the 1937 Grand Prix at Hohenstein-Ernstthal, but only because of the tragedy which overtook our greatest road racer. The significance of the BMW victory in this year's Grand Prix lies in the fact that it was gained on one of the hardest courses in the world. This horizontal supercharged transverse twin has had the reputation of being hard to handle on corners. A young man named Meier has exploded that myth—unless he be a superman—for he broke the lap record on no fewer than six occasions. Forty laps of the 51/4-mile circuit had to be covered and he put up fresh figures on the 3rd, 5th, 27th, 30th, 31st and 33rd tours, although at no time pressed, despite heroic efforts on the part of Daniell and Frith on their Nortons. (The pace was so hot that Daniell tore off a footrest on a corner, which flew into the crowd like a small projectile, cutting a woman spectator's arm.) Kraus (BMW), who was riding under great physical difficulties due to a recent throat operation, finished



"the BMW...has had the reputation of being hard to handle on corners. A young man named Meier has exploded that myth..." He takes a 'line' of his own on the swerves, as shown in this picture."

fourth behind the flying Norton pair, which is an item of importance, for he would he too modest—even when physically fit—to claim the outstanding road-racing ability of his team mate. His performance, however, gives convincing proof of the qualities possessed by the BMW machines. It will be remembered that Meier won the Belgian Grand Prix, which is also run over a 'real rider's' circuit, so the fact must be faced that here is a combination of man and machine capable of beating our cracks on their existing models over any known racing circuit, with the possible exception of the Isle of Man. It would be a brave man, however, who would deny Meier's chance of victory in next year's Senior TT. The four-cylinder Gilera must not be overlooked, either. It is even faster than the BMW and steers amazingly well. It is going through teething troubles at present, but next year it may well beat Germany's pride. So much for the 500 class. We won the 350 race in Germany, and for the time being we shall continue to win in this category. White rode a magnificent race on his Norton, but German supercharged. DKW two-strokes were second and third. This 350 type is a new model going through its development period. Next year it is on the cards that it will have a relative performance to its wonderful prototype which has carried all before it, including the Lightweight TT, in the 250cc class. We can anticipate, therefore, that our last shred of racing supremacy may disappear in 1939. The rumoured 350 BMW has not materialised, but it is interesting to note that DKWs have an experimental 250cc four-piston twin (the existing machine is a two-piston single), and this will probably be made in the 350 capacity, and

even in 500cc form, later, when something pretty formidable may be expected. The supercharged NSU 350 side-by-side inclined twin is too new to warrant an accurate estimate, but there seems no doubt that the speeds of these supercharged multis have brought the British racing firms to the cross-roads where a decision must be taken. Theirs is not an enviable position, because the fact must be faced that supercharging has proved itself, and supercharging implies multi-cylinders, as no satisfactory method of supercharging a single cylinder is likely to be evolved. It is only supercharging which is beating us. Great Britain makes the finest single-cylinder machines in the world, and for sheer power per cc, without the aid of supercharging, Great Britain has always led the way. Joe Craig of Nortons, and Harold Willis of Velocettes, to name but two British development engineers, have worked miracles in pitting unsupercharged machines against their supercharged foreign opponents. The margin between the foreign and British machines is amazingly small when one considers the enormous advantage which supercharging gives to an engine so equipped.—Graham Walker"



"We won the 350cc race in Germany, and for the time being we shall continue to win this category. Here is the winner, JH White, on his Norton, cornering during the race." (Right) "The 350 DKW "is a new model going through its development period". The rider on one here is S Wunsche, who was third."

"THIS IS ANOTHER instance of the way in which you fellows ride those cycles—coming helter-skelter through the streets of the city regardless of the danger to yourself or any one else,' said Stipendiary Magistrate Smith at Glasgow Central Police Court when sentencing a cyclist who was charged with reckless riding."

"TWO MEMBERS OF the BMCA, also members of a very prominent London motorcycle club, were dismissed in the Rugby Court on a charge of careless driving whilst doing 75 to 80mph on a derestricted road. The defending solicitor, instructed by the Association, held that there was no danger whatever to other traffic on the road, and this view was sustained by the Bench."

"THE ISLAND OF STROMA, in the Pentland Firth, which recently made history when the first road licence was granted, can now boast of four vehicles. Three natives have returned to the island each bringing a motor cycle. If progress continues at this rate, the Minister of Transport will be wanting to install automatic traffic signals and pedestrian crossings."

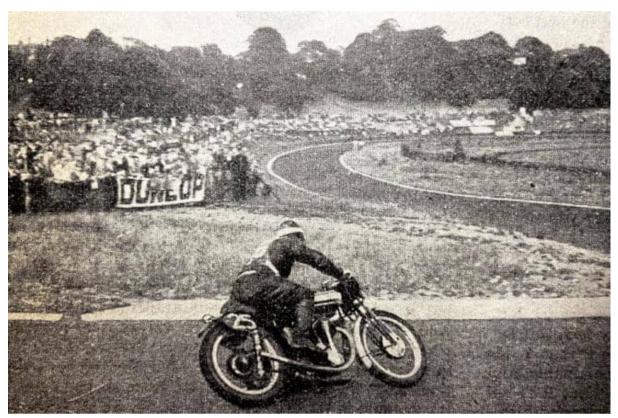
"BEST PERFORMANCE OF THE day, fastest time and first in every event—all these honours were recently, collected by a British motor cycle in one of the toughest hill-climbs in America. The event was held in Westfield, near Jamestown, NY, on the edge of the Canadian border, and it was supported by most of the hard-riding 'slant-artists' from the Eastern states and the Dominion. Only one British machine took part, a Triumph Speed Twin, ridden by a Canadian, Bill Smith. The rest of the entry consisted mostly of American machines, specially built for hill-climb work. They all used tyre-chains and many were of 1,300cc. The Triumph was a standard sports touring mount of 500cc and was used in all events without chains. Even so, it was the only machine to reach the summit."

"I NOTICED A LETTER in *Motor Cycling* about cutting patterns on smooth tyres, and I suggest another method. There is always a chance of cutting the cord when using a knife and for that reason I prefer to burn a pattern with red-hot skewers. This has the advantage of being unable to cut the canvas but at the same time put the deepest possible pattern on the tyre. I use two 10in metal skewers and a small blow lamp. It takes about an hour and a half a tyre, with a transverse tread every 2 inches. It sometimes catches fire but is easily blown out, and the smell is not too bad if one concentrates on the job!

## FA Grantham."

"ARE WE 1% BLACK SHEEP? Further to the letter from Mr RD Hollis, concerning motor cycle patrols on the Epping Road. It was not my intention to condemn the present activities of the police on this road, but rather to deplore the paucity of such activities. Since writing my first letter I have had an opportunity of a chat with two patrols at The Wake Arms. Their opinion was that about 99% of motorcyclists are decent fellows, but the other 1% are real 'black sheep'. To my mind, road-users are not persecuted on [the] A11, but are being helped by having their driving faults explained. Such items as riding two abreast round bends, and passing at an island, are the main faults of motor cyclists. Mere speed on a deserted road seldom calls for any notice. I think that considerate riders do not have to watch for police patrols. It is only those who are proud of 'Brooklands cars', and the absence of a rear light, combined with Castrol R, who have any need to feel guilty. And such people are the first to moan when they are apprehended.

'Metro'."



"A comparative newcomer to the Crystal Palace distinguished himself on the road circuit there on Saturday last. The rider was Kenneth Bills (Norton), the well-known SE Centre clubman, and the occasion the Road Racing Club's 'Mixed Grill' Meeting for motorcycles and cars. Bills won the Crystal Palace Trophy and broke the lap record by no less than 2mph—a very fine performance as it has been standing since last season to the credit of Maurice Cann."

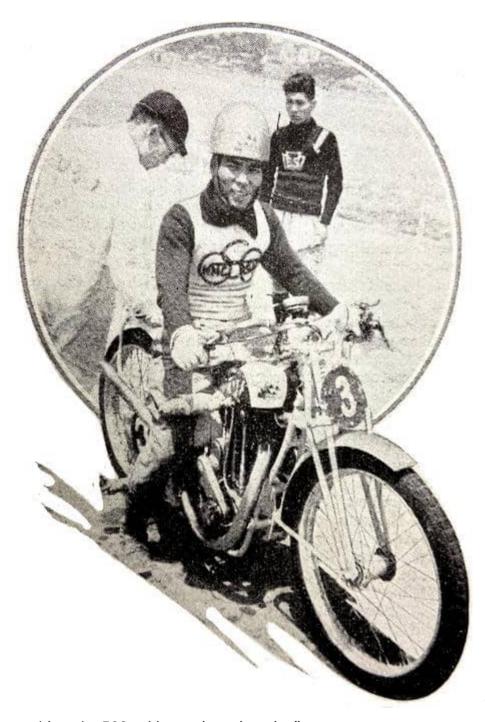


Eric Oliver was also racing at the Palace and raced solos after the war but clearly liked a combo—he became Sidecar World Champion four times and was a great innovator, pioneering a dustbin fairing, rear suspension and a semi-kneeling riding position. What's more he turned up at the 1958 Sidecar TT on a standard Norton Dominator 88 and Watsonian Monaco sidecar and finished a highly respectable 10th, ahead of many pukka racing outfits. [Yes, I know that story doesn't really belong in 1938 but it was too good to wait another 20 for—Ed.]

"THE FOLLOWING ARTICLE was received from a correspondent in Tokyo and is reproduced just as written. In many instances the English is on the quaint side, but the article is of extreme interest, showing as it does how much interest is taken in motor cycling in a land and among a people where development upon modern lines has taken place only in the last few years."

"THE TRADITIONAL SPRING motor cycle race of the Nippon Motor Cycle Club was held this year again on the Tamagawa-Speedway, near Tokyo-City. Ten thousand spectators surrounded the track, sitting on wooden steps of the open stands. The entrance fee was 50 Sen for the sides and Yen 1 for the first place, programme included. (Yen 1 equals about 1s 3d.) This year's race war of utmost importance, since, for the first time in history a remarkable number of Japanese-made cycles appeared on the start-line, the names of which were Meguro, Ritsurin, Kuwabara, Sunshine, MSA, Kamia, Cabton, Asia, Mikasa and Asahi. It will be noted that many names sound like English ones, which doubtlessly is a reason of sale on the world market. The European and American industry has been represented by Velocette, Blackburn, AJS. BSA, OEC, Zündapp,

Sarolea, Harley, Eagle, Ariel. Indian and Bridgestone [sic]. Most of these cycles, however, have been of very old design and not the right specimens to represent European technich of to-day. While the events on the track could be compared with life on an European race-course, the officials and spectators proved themselves entirely different to those of the western countries. The race-officials appeared in morning coats with brown hats or caps; while the spectators did not mind to walk along in under pants. The Hino Maru, the Japanese national flag was found painted on almost every framepart of the Japanese cycles; golden and silver painted racing helmets have been in favour. The inner sides of the tyres were not seldom painted with the same colour as the frames. The main event of the day was the race of the big 500cc class in which the only European driver, the German, Bernstein, on a Zündapp participated. The first race of this class, covering 5 laps of the ¾ miles long race course, without elevated curves, was won by the Zündapp at the speed of 66.8mph with 2½ seconds before the second, Asia 500cc and third a Velocette 485cc. The final race, however, went to the Asia, which did the 10 laps in 67

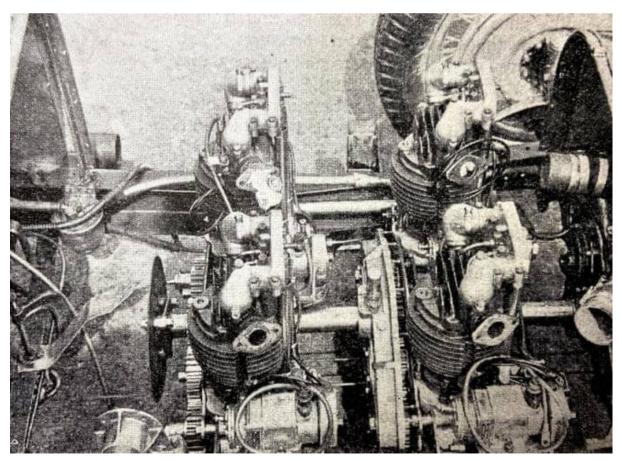


"Japan's finest

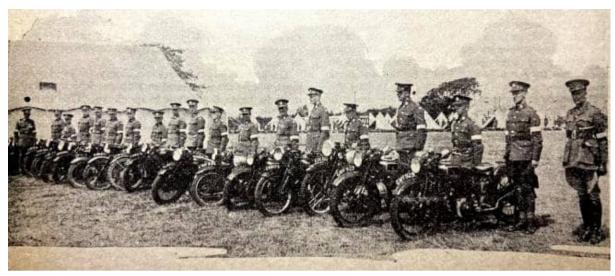
machine, the 500cc Meguro in racing trim."

miles speed before the second Velocette and the Zündapp, which was unlucky to flew off the sandy outer curve, 300 yards before the goal, and lost, by bringing the cycle straight again, the 1 second to Asia. The 350cc class race was won by Cabton with 65mph before a Velocette and a Mikasa, while a Meguro could secure the final laps with 65.2mph. Sunshine was successful in the 300cc class with 63 miles average before a Velocette and a Blackburn. The final race was, however, won by Blackburn in 64 miles before a MSA and the former winner Sunshine. It is interesting that the average of the 200cc class was higher than the 350cc cycles, while the 500cc machines could only be

faster by two miles. Sunshine, 196cc, won this in 63 miles ph, leaving Kamia, 175cc, and MSA, 175cc, behind, and could even increase its speed to 65.2 in the final laps. The very climax of the day was the economic test drive of a dozen of Japanese-made rear-cars with lorry body. Every driver received only 2 gallon of petrol (0.380cc) and had to run at a speed of minimum 18 miles ph. New Era succeeded in setting up records with nine miles for 600cc and eight miles for 750cc engines. The test was interesting, so far as at present the consume of petrol is limitated in Japan to two gallons (American) to owners of passenger-cars, and much less to cycles. The costs of Japanese-made motor cycles in general are much higher than believed in Europe, where everything made in Japan is thought to be cheap. This is entirely different as regards motor cars and motor cycle, The Asahi, most popular cycle, with 175cc two-stroke engine—similar to the 1932 model of DKW engine—with steel frame, costs Yen 475, or about £30 15s, which is supposed to be an exorbitant high price for such a vehicle. Compared with the low wages in Japan, the cycles are much too expensive, and the 500cc ones are priced also over £70. It might be of interest that a first-class bicycle, the Miyata, costs in Tokyo Yen 75 (about £4 I5s) and the bad class starts at 25 to 45. As regards the motor cycles it does not surprise that there are only a few up to now on Japanese roads, compared with its population. The three-wheeler rear car, however, is seen in big numbers and dominates in the transportation business. The prices of these vehicles are £78 for the 600cc and about £90 for the 750cc."



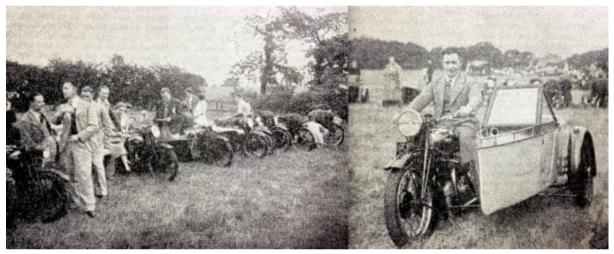
"These four dirt-track JAP engines form the power unit of Charles Martin's new racing



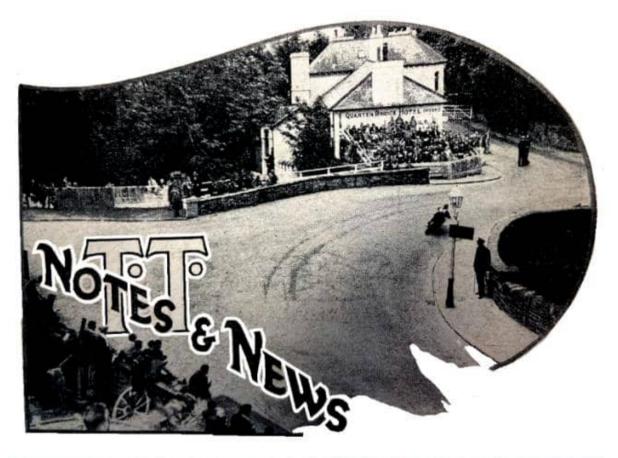
"The DRs of the 49th Divisional Signals awaiting inspection by the Princess Royal at Halton, Lancs, on August 4—the 20th anniversary of the day Britain entered the Great War."

"FORSAKING ordinary sporting and social events, members of the North-Western Centre gathered at the Park Hall Hotel, Charnock Richard (Lancs), on Sunday last for the Centre's annual rally and gymkhana. This is always an opportunity for a gala day and a dozen of the Centre clubs were officially represented, members of others were present, and the total attendance was in the neighbourhood of a thousand. A feature of the affair is a competition for the Kenworthy Cup which is awarded to the club having the best figure of merit, based upon percentage of members present and the distance travelled from the club territory. Winners proved to be the Tyldesley &DMC with 30 (out of 32) members present; their figure of merit was 103. Next came the Leigh MCC with 92.8, and third were the representatives of the ATM MC (Liverpool) with 75. On last Sunday's showing a Society for the Preservation of Ancient Machinery would have little success in the North-West. There were only two contestants for an award in connection with the oldest motorcycle ridden to the rally. They were C Greenall, on a 490cc Norton of 1929 vintage, and John Mares, with a 348cc Sunbeam of the same year. Further particulars regarding the date of registration were called for, but such evidence as could be produced was not decisive. The regulations had not foreseen the possibility of a tie in a competition of this type, so the claimants agreed to toss for the award. Luck favoured Greenall, who thus took the prize. There were plenty of excellently maintained machines on the ground, but the entry for the 'spit and polish' competition, with an award for the best-kept model actually ridden to the Rally, was on the small side. Shining enamel and plate graced even the products of 1931, but after due inspection the judges had no hesitation in giving the honour to JW Valiant, who had obviously lavished considerable care upon his Ariel Square Four sidecar outfit. Later, it was discovered that owing to an

error one entrant had been awaiting the judges at the wrong place. He was J Watson, mounted on a 1931 Brough Superior solo. After investigation of the circumstances, and after an examination had revealed the machine to be in absolutely tip-top condition, the officials decided to grant a special prize. A highlight of the gymkhana was a trick-riding display, specially featuring jumping through hoops of fire, which was given by a number of club members. Mr Arthur Taylor, Centre chairman, and Mr Jack Greene, Centre secretary, had a change from their serious business of supervising sporting events and were the leaders in filling up the afternoon with a programme of the 'fun and games' variety, there being surf-board races, obstacle races, slow races, musical chairs and pram races. After the sports there was tea at the hotel, with a prize distribution to follow. Those clubs with the longer journeys before them needed to start for home fairly early in the evening, but a large crowd remained to enjoy dancing in the ballroom and some of the parties did not depart until a late hour."



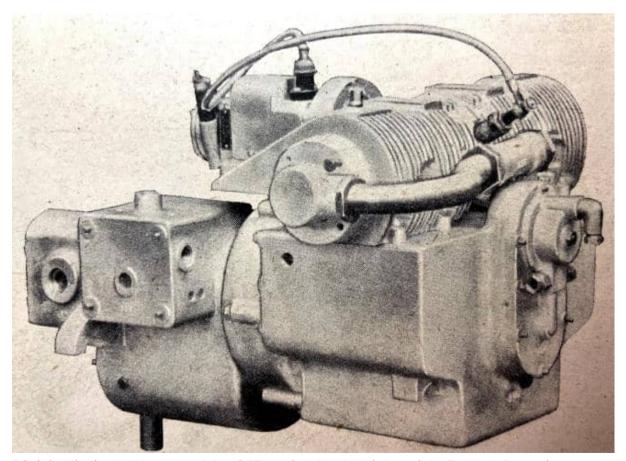
"Mr Arthur Taylor, Centre chairman, takes the count of the East Lancashire MC&LCC." (Right) "JWValiant (Ariel sc), whose outfit was adjudged the best-kept model ridden to the Rally."





"IN THE LIGHTWEIGHT RACE this year there will be a British machine of unique design, full of novelty and new applications—a newcomer in every sense of the term. At the moment of writing this machine is incomplete, and the engine has not run, and in view of the little time left for experiment, it is, perhaps, too much to expect that it will figure prominently in the Isle of Man. Nevertheless, its performance, no less than its design, is bound to be viewed with intense interest. The machine, known as the CBT, has been designed by CB Taylor and will be ridden by him. The first model includes several features which have had to be adopted owing to lack of time. Originally, the machine

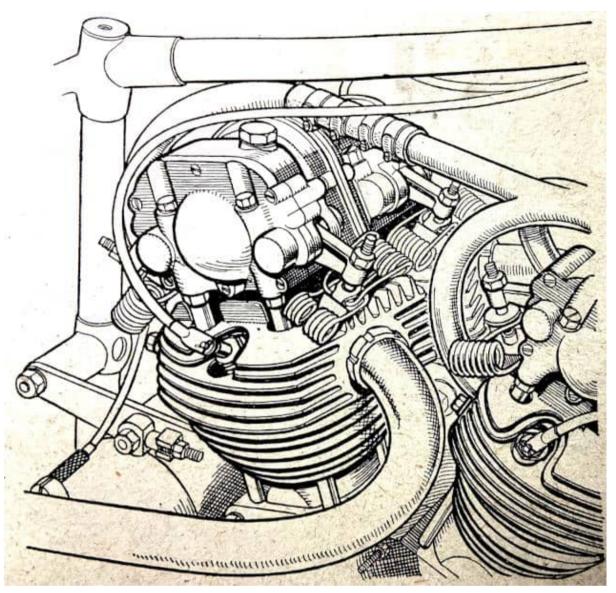
was laid out for shaft drive, but for the moment the final drive is by chain, while the gear box, as will be explained later, is not in accordance with original ideas. The engine is a twin two-stroke of 247cc, and is placed transversely in the frame. The cylinder consists of a continuous tube with induction, exhaust and transfer ports. In the middle portion, the bore is 56mm., but at the two ends of the cylinder the bore is increased to 62mm. The stroke is 50mm. Horizontally-opposed, the two pistons have both their ends closed; they also have two different diameters, corresponding with the cylinder bores. The middle of the cylinder is the combustion chamber, and the single sparking plug protrudes into the bore between the inner ends of the two pistons. Each piston has a small gudgeon pin, attached to which is a tiny connecting rod, which runs down the middle of the piston. On the under sides of the pistons are slots, which admit the ends of rockers, and these in turn are pivoted to the ends of the small connecting rods within the pistons. These rockers are very substantial and pivot on large bearings supported on webs cast inside the crankcase. Their lower ends are joined to stiff connecting rods  $3^{15}/_{16}$  in. long, and these rods are attached to crankpins on a two-throw crankshaft. The cylinder assembly is bolted to and lies flat across the top of the crankcase, and the rockers extend downwards through slots cut in the underside of the cylinders, into the crankcase. Rotation of the crank moves the main connecting rods, which operate the rockers, and the latter cause the pistons to slide within the cylinder; the pistons move outwards and inwards together.



"Originality is the keynote of the CBT engine for the Lightweight Race. A flat-twin two-

stroke of 247cc, it has two-diameter cylinders and pistons with a common combustion chamber. The outward movement of the pistons compresses the mixture in the outer and larger bores, and it is then transferred via a rotary valve to the smaller bores, where it is further compressed by the inward movement of the pistons."

"ONE OF THE MORE interesting points about the AJS four-cylinder model is the fact that it runs on a petroil mixture. No, it has not become a four-cylinder two-stroke during the winter. It is only an ingenious idea to overcome the necessity for a special oil pump to lubricate the Zoller supercharger. The appearance of the AJS Four has been altered in several ways since the machine made its debut in the Isle of Man. In its latest form the camshaft gear and rocker boxes more closely resemble those on the single-cylinder models. Improvement has also been made to the 'plumbing' of the exhaust and inlet pipes. To achieve this end a small quantity of oil (2%) is mixed with the petrol. As soon as the engine is running the oil becomes separated from the petrol vapour by the centrifugal action of the supercharger on the same principle as petroil lubrication in simple two-stroke engines. On the AJS Four a large Amal carburettor supplies the mixture to the supercharger which, in turn, passes it to the cylinders at a pressure of roughly 5-6psi. To improve the 'navigation' of the four-cylinder AJS Matt Wright decided to set the power unit farther back in the frame. This, in turn, called for the removal of the oil tank. This alteration was in some respects a blessing, for the oil tank was rather apt to mask the two rear cylinders. Now that the oil tank is situated inside the large fuel tank the cooling of the AJS has been considerably improved, together with its steering."

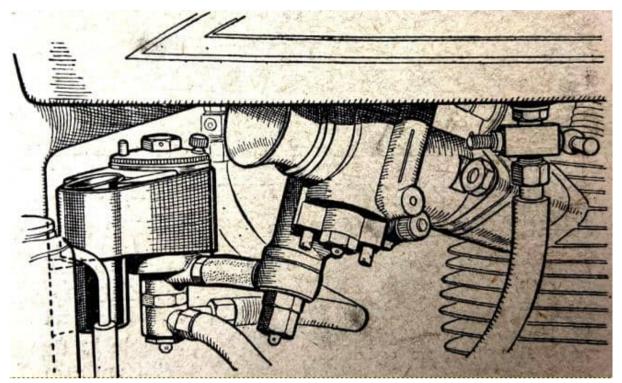


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COTTONS have only one official entry in the Lightweight Race, but that lone model will have several features of interest. It will be ridden by the Brooklands and Donington star, MD Whitworth. The engine fitted to the Cotton will be an experimental JAP with a new and improved cylinder head.

"NO DOUBT YOU have pondered over the details and photographs of the new racing Nortons. Did you at the same time recall our 'Technical Lessons of the TT' published on July 1st of last year? Here is an extract: 'If this method of suspension (plunger-type springing) is sound at the rear end of the machine, it seems reasonable to suppose that it will be equally good at the front. It would obviously reduce the amount of unsprung

weight as compared with the modern girder-type front fork. This, I suggest, is likely to be one of the next lines of development."



"Owing to the forward mounting of the oil tank on the 348cc TT AJS models, it has been found necessary to attach the independently mounted float chamber to a stub on the seat pillar."

HAVING PREVIOUSLY EMPLOYED Jock West to ride in the TT BMW sent German stars Karl Gall and Georg Meier to the Island two months before the TT and paid West to teach them the course. Norton, following its narrow victory the previous year, was well aware of the BMW's ability. It also faced a serious challenge from the blown Ajay V-4 (which was now water-cooled) but Moto Guzzi would not be there. The reason given was that the TT clashed with a summit meeting between Mussolini and Hitler but this clearly wasn't a problem for the Germans. Possibly the Italians simply lost their nerve. In the event Gall was hospitalised by a crash during practice and Meier's BMW stripped a spark plug at the start. Geoffrey Davison, editor of the *TT Special*, produced his usual excellent summary of the week's racing: "The one evening's practice in 1937 had proved so popular that for 1938 the ACU extended the idea to cover two evenings—the Tuesday and Thursday of the second week. Also they very wisely decided not to hold any practising on the mornings following. On each of these days, therefore, there were two practice periods, morning and



Two Norton riders get under way in the Junior" JC Galway (Norton) was one of 20 DNFs; HB Waddington finished 12th. Nortons finished 34d, 4th, 5th, 7th, 8th, 10th, 11th, 12th, 16th, 17th, 19th and 21st, but Velos ridden by Stanley Woods and Ted Mellors were 1st and 2nd.

evening, and on the Wednesday and Friday the riders were able to stay 'backs down' until the world was well aired. The two evening practices were most welcome, for the first five mornings were the worst the TT has ever known. On the opening day torrential rain fell and the four stalwarts who turned out looked as if they were taking part in a combined operation. On the second morning it was not actually raining, but there was mist on the Mountain. On the Saturday the weather was nearly as bad as on the opening day and only eight men faced it. Monday and Tuesday mornings saw more heavy rain and thick mist most of the way round the course. It was not, therefore, until the Tuesday evening that most riders got going, and even then no records were broken. In fact, the practising period came to an end with both Junior and Senior records standing, though in the lightweight S Wunsche and E Kluge on the German DKWs did laps in 28-41, 27sec better than the record established by Tenni in the 1937 race. Crasher White (Norton) had made best Senior lap in 25-48 and Stanley Woods (Velocette) best Junior in 27-9. The 1938 Junior was once more a Norton-Velocette duel, but the Velos had found some extra speed during the past year and Stanley was a hot favourite. He and Mellors, also on a Velocette, were, indeed, first and second each lap of the race, with Freddie Frith and Crasher White both on their heels. Stanley won easily—by nearly four minutes—but only 36sec divided the second, third and fourth men. Daniell, who had then joined the official Norton team, was fifth and Nortons won the team prize. The Italian Guzzis, replete after their victory the previous year, were absentees from the 1938 Lightweight; and the only real Continental challenge came from the DKW two-strokes ridden by E Kluge, S Wunsche and the Englishman, Ernie Thomas. Those of us who had studied form, however, knew that, unless disaster overtook the DKWs, one of them was sure to win. The best practice lap by an English machine was that of Ginger Wood's Excelsior in 30-2, 1min 21sec slower than the two German riders. There seemed little hope of a British victory, although Ginger. Wood and Tyrell Smith (Excelsiors) and Les Archer (New Imperial) could be relied upon to force the pace. The start of the race was delayed for a couple of hours owing to bad weather on the Mountain, but when the maroon went off

at 1pm visibility was reported to be at least half-mile everywhere and high speeds were anticipated. The three DKWs showed fine acceleration as they left the start and they were certainly the noisiest machines the Island had ever heard. Wunsche had trouble in the first lap and retired at Ramsey, but Kluge led his team-mate, Ernie Thomas, by nearly a minute, with Les Archer (New Imperial) over three-quarters of a minute behind. After two laps Kluge had increased his lead over Thomas to nearly two minutes and Ginger Wood had drawn into third place. Then Ernie Thomas ran out of petrol towards the end of the third lap, and, with only one of the Germans left, we said that there was still a chance. Kluge, however, was riding magnificently and had so substantial a lead that he could afford to take things easily. At the end of the third lap he was 52min ahead of Ginger Wood, but instead of slowing down he increased his lead to 51/2 min on the fourth lap, nine minutes on the fifth and nearly 10 on the sixth. Finally he won by over 11 minutes, with a host of Excelsiors after him. Actually Excelsiors filled all places from second to seventh and were the only machines to qualify for first-class replicas. Needless to say, they won the team prize. [So it's fair to say the Excelsior Manxmen lived up to their insular nomenclature—Ed.] The Lightweight had been a dull race. Our only hopes were that Kluge would break down, but, as he showed no signs whatever of doing so, it was just a case of Kluge and the 'also rans'. The Senior was very



Crasher White takes to the air on his was to 4th spot in the Senior.

different. As in 1937, it soon resolved itself into a battle between Freddie Frith (Norton) and Stanley Woods (Velocette), with Harold Daniell and Crasher White (Nortons) close behind. Freddie led Stanley by 16sec at the end of two laps, but on the third lap Stanley was three seconds ahead, with Harold Daniell half-a-minute behind Frith. On the fourth

lap Freddie was two seconds faster than Stanley, so was then only one second behind him, and Harold Daniell had picked up to within seven seconds of Freddie. The excitement was terrific. Next lap Stanley turned the tables on Freddie by doing a lap in two seconds better than him—so they had covered the two laps in exactly the same time. Harold Daniell, however, had knocked seven seconds off Freddie's time, so was bracketed second with him, three little seconds only behind 'the flying Irishman'" Harold was now definitely out to win. On his sixth lap he broke the record for the course by putting in a time of 24-57—first ever under the 25 minutes. This gave him a lead of five seconds over Stanley, and Freddie, having also picked up three seconds, was bracketed second. Then the man who, a



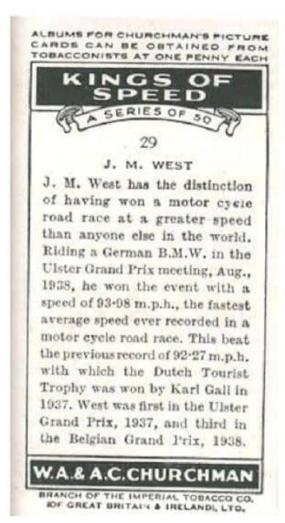
Norton won the manufacturer's team prize thanks to messrs Daniell (1st), White (4th) and Frith (3rd).

year or so later, was considered too short-sighted to join the Army as a despatch rider, went faster than ever. On his last lap he improved his speed once again with a time of 24min 52.6sec, at a speed of exactly 91mph, which won him the race by just over a quarter of a minute. Freddie Frith finished third, 1.6 seconds only behind Stanley. Nortons won the team prize and Harold Daniell's record lap was unbeaten the next year and still stands to-day. That was the most terrific lap the Island has ever seen." [Geoff Davison was writing in 1948; in 1950 a newcomer named Geoff Duke, also aboard a Norton cammy single, smashed Daniell's lap record, helped by the re-introduction of decent fuel following wartime low-octane 'pool' petrol and a Featherbed frame. Every

bike that finished the Senior was a Norton or a Velo. an HRD-Vincent retired. The blown V4 AJS was back following its disappointing debut in the 1936 Senior but Bob Foster's campaign ended after two laps due to overheating. —Ed] RESULTS Junior (42 starters, 22 finishers): 1, Stanley Woods (Velocette) 84.08mph; 2, Ted Mellors (Velocette); 3, Freddie Frith (Norton); 4, Crasher White (Norton); 5, Harold Daniell (Norton); 6, M David Whitworth (Velocette); 7, N Croft (Norton); 8, J Williams (Norton); 9, R Loyer (Velocette); 10, WH Craine (Norton). Lightweight (29 starters, 14 finishers): 1, Ewald Kluge (DKW) 78.48mph; 2, S Wood (Excelsior); 3, HG Tyrell Smith (Excelsior); 4, Maurice Cann (Excelsior); 5, Charlie Manders (Excelsior); 6, JW Forbes (Excelsior); 7, Les Martin (Excelsior); 8, GL Paterson (New Imperial); 9, JC Galway (Excelsior); 10, SM Miller (OK-Supreme). Senior (25 starters 14 finishers): 1 Harold Daniell (Norton) 89.11mph; 2, Stanley Woods (Velocette) 3, Freddie Frith (Norton); 4, Crasher White (Norton); 5, Jock West (BMW); 6, Ted Mellors (Velocette); 7, Les Archer (Velocette); 8, JC Galway (Norton); 9, JA Weddell (Norton); 10, JK Boardman (Norton).

THE FIRST ISLE of Man Grand National scramble was held during TT race week. The top three bikes were a 350cc Beeza, a 350cc Triumph and a 500cc Ariel.





Having finished a respectable 5th in the Senior TT Jock West gave his Blown Beemer its head on the Clady circuit to win the Ulster GP at a record breaking 93.08mph.

"STANLEY WOODS LOOKS BACK on 16 years of TT riding: 'Often when I hear riders complaining about the condition of certain parts of the, TT course I smile, and say to myself, "What would they say if they had to ride on the course as it was when I first rode in 1922?" Whenever I voice this thought aloud their obvious remark is to the effect that machines were not so fast in those days. This is, of course, true. But neither did they steer so well, for such refinements as big-section tyres, steering dampers and spring frames still belonged to the distant future. It is practically impossible to convince a newcomer to the Island that the roads of 1922 were really so bad as I describe them. Tar-spraying was only just coming into general use, and with the exception of the roads in the immediate vicinity of Douglas, a few short stretches on the way to Ballacraine, and a very short stretch in Ramsey, this type of surface was unknown on the TT course. For the rest, the surface as far as Ramsey was simply water-bound macadam. Dusty and loose at its best, under any overhanging trees it was badly pot-holed from the rain dropping off the trees. Moreover, the road was little more than half its present width, and steeply cambered...Sulby Bridge, as I first remember it, was barely wide enough for two cars to pass, and the road from Sulby to Ramsey, which is now one of the best

stretches, was up to 1924 easily the worst. Loose and dusty, it was deeply pitted with pot-holes which were quite impossible to avoid, even at touring speeds. From Ramsey over the Mountain was the piece de resistance. From just above the hairpin there was no true surface at all—it was just a sandy mountain track with grass growing between the shallow ruts that the wheels of passing cars had left. Even at its widest point the track was far narrower then than it is now at its narrowest, and the crown of the road was unusually high. This made passing very difficult, and when the weather was wet the surface became so soft that the wheels of passing motor cycles left a distinct track, which intensified the difficulties. More than once when conditions were like this I was able to pass Senior mounts with my Junior Cotton. This was due solely to the low centre of gravity and general controllability of this little machine. Scotts were another make that always shone under these conditions. Approaching Craig-ny-Baa the road surface improved somewhat, although judged by modern standards it resembled a gravelled drive more than a road. There was a group of enthusiasts—Scotsmen I believe they were—who for several years used to arrive armed with brushes and sweep several hundred yards of the approach and the actual corner. Stout fellows! A fair idea of the actual race conditions may be obtained by quoting from The Motor Cycle report of the 1923 Junior: "The sliding wheels of Woods' Cotton threw up a bow-wave of dirt and stones." That was on Hillberry! Another hazard with which we had to contend was nails. Horse-drawn vehicles still outnumbered motors and the number of nails which used to drop from horse shoes and carts was enormous. During practice one morning a friend and I walked up the course towards Signpost—the roads were not closed for practice in those days—and between us we collected a pocketful of nails! The foregoing accounts for the reason why most of us rode with at least two butt-ended tubes wrapped round our waists, and frequently needed them. You will now probably think that the increase in lap speeds from 60mph in 1922 to 90mph in 1937 is due principally to the improvements in the roads. I do not hold this view. While admitting that the road improvements have contributed very largely to the in-crease in speeds, I contend that by far the greater proportion of the gain is due to engine design and general controllability of the machines. The question has been raised from time time as to how one of the 1922 racers would perform on the present-day course, and what sort of a show a 1938 machine would make under 1922 conditions. There are those who say that the 1922 machine would go much faster on the new course, but only for a few laps—a short life but a gay one! They contend that it would never be able to stand the strain of full throttle that the present-day roads permit for mile after mile. That is undoubtedly true. For I know from experience that the racing engine of 1922 could not stand full throttle even for the comparatively short stretches that the roads of that time permitted. How then, you ask, did any machine finish the course? How did the winners win? Simply by realising the limitations of their mounts and driving well within them. Therefore, assuming that the rider realised he must nurse his engine, as it had to be nursed in 1922 I think that it would probably be possible to lap about 2mph faster to-day...If anyone is

inclined to doubt that conditions were really so bad as I make out, I suggest that if they are in the Isle of Man this year they branch off the Mountain road about half a mile after the Bungalow. The second turn to the right, to be exact. Follow this road for some distance, and quite suddenly the wide, good surface degenerates into a narrow mountain track. That is what the old Mountain road used to be like. I am assuming, of course, that the Highway Board have not completed the job of remaking the road. In my opinion, the greatest change of all concerns the Races themselves—not the course or the machines. Up to about 10 years ago the Races—all of them—were wide open until the winner crossed the line. With the exception of the Junior AJS machines of 1921, 1922 and 1923, it would have required great courage to forecast what make of machine would do well, let alone naming the actual rider. Even the riders could do no better than name half a dozen and say that one of those would win if his machine lasted the course. Ah, well! Times have changed since 1922, but it's great to look back on it all.'



"Nearly 16 years ago, a practically unknown Irish youth came very near to winning the Junior TT. Then he was just S Wood (348cc Cotton), and here he is on his spidery looking machine rounding Ramsey Hairpin on his way to the Mountain. He averaged 49.13mph and finished fifth." (Right) "Stanley Woods—hero of many titanic races and winner of more TTs than any other rider—smiles with his charming wife after losing last year's Senior TT by 15 seconds. Compare his 1937 average speed of 88.09mph with the 49.13mph he achieved in his first TT in 1922."

ALL-WEATHER RIDERS could buy RAF electrically-heated 'flying waistcoats' for 3/11d; heated gloves cost 2/6d.

AJS's Olympia line-up included a potent 350cc cammy single racer designated the 7R.

A GROWING NUMBER OF police forces were joining the 'courtesy cops' campaign which entailed using advice rather than prosecution to deal with minor traffic offences. The Metropolitan Police Commissioner called for 2,500 motor cyclists to volunteer for the Special War Reserve Police.

NEW IMPERIAL FELL INTO receivership following the death of company founder Norman Downs. Not for the first time Ariel supremo Jack Sangster leapt into the breach. He bought the name, paid off its creditors in full and maintained New Imp production tat Hall Green in Birmingham, pending a move to use up unused space at Triumph's Coventry plant. The Motor Cycle reported: "An offer made by Mr Jack Sangster to take over New Imperial Motors as a going concern has been accepted by Sir C Herbert Smith, the receiver for the debenture holders. It is stated that it is Mr Sangster's intention, as soon as the necessary legal formalities have been completed, to make an offer to the company's trade creditors whereby they will receive. 20s in the  $\mathfrak L$  in respect of the claim against the Company. Mr Sangster is now on holiday abroad but his representative states that the manufacture of New Imperial motor cycles will be revived within the course of the next few weeks and that a statement in regard to the future policy will be made shortly."



Thanks to Jack Sangster New Imps stay in production, at least in the short term. This example is a 150cc Model 23.

RUDGE PRODUCTION MOVED from Coventry to HMV's site in Hayes, Middlesex. A utility 98cc autocycle was added to the range, there were plans for a cammy 350 and the War Department ordered a 250. But after the first 200 bikes had been delivered the HMV factory was requisitioned to make electronic equipment for the military. The autocycle design was taken up by Norman, but for Rudge it was the end of the road.

VICTORY IN THE VICTORY Trial (launched in 1919 to celebrate the end of the Great War) went to a team from the Royal Tank Corps.

"WHY ARE THERE NOT more lady motor cyclists? This is a question that is frequently asked—in the Correspondence columns and by riders who would like to see their sisters, fiancées or lady friends taking an active part in the sport which they themselves enjoy. The probable answer is that very few women have an opportunity of trying a motor cycle—of finding out just how easy it is to manage and control one, and how much pleasure it can give. The natural result is that, doubting their ability to handle a powered machine, they often decide that a pedal cycle would best suit their needs. Unfortunately, a few men riders are inclined to look upon lady motor cyclists as 'gatecrashers' in a sport which (they consider) should be purely masculine, and for this reason are prepared to do little more than permit their lady friends an occasional ride on the pillion. And yet feminine interest in the sport is actually of the utmost importance. For instance, how often Mother has the last word when sixteen-year-old wants a motor cycle; and everyone knows the young man who has to give up two wheels because his wife prefers a car. But the modern Miss (or Madam!) who would like to learn to ride is no longer dependent upon the whim of her male friend—that is, if she lives in the London area—for she can join the London Ladies' Motor Club and be taught by experts on a special Club machine. As is well known, several clubs have similar excellent schemes for introducing beginners to the sport. The ideal would be for every club to have its 'beginners' course' with, may we suggest, a special section for ladies."

MATCHLESS RECEIVED A WAR Department order for modified 350cc ohv G3 Clubman models which were certainly nimbler than most contemporary military bikes.



These WD Matchlesses, pictured in a news magazine, were to be reinforced by thousands of G3Ls with Teledraulic forks.

FOLLOWING ALLAN JEFFERIES' BRITISH Experts Trial victory on a sidevalve Triumph so many riders decided that a 'soft' sidevalve engine was the way to go that Triumph increased sidevalve production to match demand. So a single victory affected the production schedule of a major manufacturer—not something that happens every day.

"I NEARLY FELL OFF yesterday. Was adjusting the flaps of my Stormgard at about 60 with one hand only on the bar when a big saloon car, which had crept unnoticed on to my tail, let fly with a hooter resembling a crashing chord on a super cinema organ, and startled me out of my wits. Some Continental nations have laws about hooters which we do not share, such as a bulb horn for towns, and the klaxon type reserved for the open road. There was a time when the fast-car brigade used exhaust whistles for quick overtaking work. I must say that for overtaking on the open road something shrill and high-pitched always strikes me as more efficient and less startling than the organ type

beloved by the young millionaires of to-day. Anyhow, drivers of fast cars should not operate a super-alarm right in the ear of a motor cyclist."—**Ixion** 

VELOCETTE WAS WORKING on a 500cc blown, shaft-drive inline dohc vertical twin dubbed the Roarer.

DKW LIGHTWEIGHTS WERE SELLING well in the Netherlands but the Dutch distributor had Jewish directors and under the Nazis' anti-Semitic laws German firms were not allowed to do business with Jews. The distributor, Stokvis & Sonnen, turned to Royal Enfield which quickly turned out a copy of the 98cc single that was DKW's best seller in Holland. For British consumption the DKW lookalike got an improved 125cc engine and was sold as the RE, more commonly known as the Flying Flea. The Flea, which was developed because of Nazi race laws, would be put to good use by British paratroops.



This survivor is a 1938 98cc DKW which was copied by Royal Enfield.

SUNBEAM HAD PASSED from ICI ownership to join AJS under Matchless control; the three marques would operate as Associated Motor Cycles. Sunbeam and tooling headed south but the workforce was absorbed into ICI; AMC gained access to Sunbeam's legendary high-quality paint finishes which is what had attracted ICI in the first place. An early product of the move was a Sunbeam high-camshaft ohv single designed by Bert Collier.

BRITAIN AND FRANCE EACH had more than 500,000 motorised two-wheelers on the road, though many of the French bikes were untaxed tiddlers. Germany had more then 1,300,000 and Italy had plans for a 'national' 200cc utility bike to be sold via a government savings scheme.

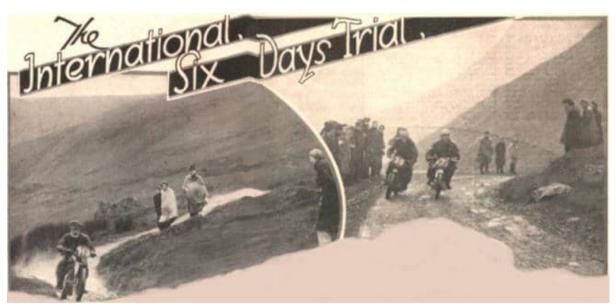
"IN LAST YEAR'S International Six Days Trial Great Britain won the International Trophy from Germany by the extremely narrow margin of ten seconds. This win was much too close for comfort, and during the winter riders, manufacturers and officials of the ACU have been working to see that the margin is improved should the decision again rest on the final speed test. Last week preliminary tests were held at Donington and all the riders provisionally selected for the Vase and Trophy teams turned up to show what they could do. The day selected was foul from the weather point of view; rain fell steadily and continuously and the temperature was low. But in some ways the bad weather was advantageous, for it meant that the riders had to carry out their tests under the worst possible conditions...All the members of the Vase teams have well-tried mounts. Len Heath's Ariel has a bronze cylinder head and an oil feed to the rear of the cylinder barrel. His air bottle is mounted in a neat cylindrical holder attached to the rear fork stays. Len was wearing the new type of Stormgard suit that all the team men will wear in the Trial. It is of a new black material, and it looks extremely smart. The suit is in two pieces, comprising trousers with no front opening and a short jacket that opens and closes with a zipp (sic) at the front. The Rudges that R McGregor and JA Leslie are to use are straightforward Ulster models, very neat and workmanlike, while the 250cc Triumphs of Jefferies and Thacker also looked fairly standard and sounded extraordinarily healthy. The Triumphs have a neat yoke fixing for the bottom of the front fork spring, so that the spring can very quickly be changed if necessary. Billy Tiffen's Velocette has a TT-type engine, and Jack Booker's 250cc Royal Enfield is of the type he has raced at Donington; it has an alloy barrel and head With very shallow fins. When the examination of machines had been concluded the competitors went out on to the track in the rain. After one lap of the long circuit the rear wheel had to be taken out, the tube removed and replaced, and the wheel put back, and then another fast lap had to be covered. Everyone got away well, and in a few



L-R: "In the tyre changing test: Jack Williams, the new member of the Trophy team, refits the front wheel of his 348cc Norton after changing the inner tube. A Stormgard

representative measures Billy Tiffen for his 'International' suit. Team-Manager Bradley tells the riders that they have to cover two laps and change an inner tube."

minutes the two Ulster Rudges arrived back, followed by Heath on the Ariel. In the tyre tests, Allan Jefferies was outstanding. Although his tools were not handy, he got them and proceeded to remove the Triumph's wheel and tube calmly and quickly, and was first away on the second lap. Jack Booker was very little slower, but when he was replacing his wheel a piece of stone got into the female portion of the detachable spindle, and he had to remove the wheel again. McGregor, Heath, Waycott and Thacker were also very good. Poor George Rowley found that all the pressure in his air bottle would not inflate the tyre sufficiently. He went off for his second lap with the tyre soft, and on the way round the valve pulled out. Another in trouble was Stuart Waycott, who found the engine of his Velocette not all that it should be, and he decided to return to the works to make an investigation. After a break for lunch, a move was made to the pits, where the riders were to be started in the schedule speed test. Waycott, of course, was not present, but everyone else put in some good laps. McGregor's Rudge was very fast, and the two Nortons also made an impressive showing. Allan Jefferies made a real race of the test on his speedy 250cc Triumph, but most of the others took no chances. After this test, which was unpleasant enough in the rain, the officials decided to call it a day and the little party of manufacturers and riders dispersed, the manufacturers to look over the machines and the riders to continue their training."



"Eunant Pass, although rough and cross gullied, gave little trouble. Here is H Sim (498cc Triumph) making a good climb." (Right) JJ Booker (248cc Royal Enfield and B Kratzer on the tiny 98cc F and S, climbing the famous Bwlch-y-Groes."

"AFTER THE MOST STRENUOUS International Six Days Trial since the inception of the series in 1913, Great Britain has emerged the winner of the treasured International Trophy for the third year in succession. Her team of four men—GE Rowley (346cc AJS),

VN Brittain (348cc Norton), J Williams (348cc Norton) and WS Waycott (598c Velocette sc) was the only trophy team to finish complete. The severity of the conditions can be gauged by the fact that out of 37 starters only two sidecar outfits, of which Waycott's was one, finished the course. There were 209 starters, of whom no fewer than 127 retired during the week. Germany was victorious in the Silver Vase contest, and also one both the Hühnlein and Bowmaker trophies. Monday—first day. For the first day of an International Six Days Trial, Monday's run was particularly exacting. For days on end the rain had been practically continuous, so that flooded roads, fords and watercourses formed the chief obstacles. But worse was the follow, for two hills towards the end of the day's run, produced such a crop of failures that they became choked with perspiring competitors, frantically struggling to push their anything but willing mounts up the narrow, slippery tracks. Delays were inevitable, and as a result many riders, including members of the British and Czechoslovakian teams, lost marks. However, after a meeting which lasted into the early hours of the following day, the stewards decided to abandon the results of at least one check. This left the German and British teams unpenalised. At the start of Monday's run, the clouds were still ominously low on the hills, and within a few miles, the competitors encountered showers of rain, and on the mountain roads a driving myth. The course lay to the south of Llandrindod Wells—for the most part in the Black Mountains. Long, hilly climbs were encountered, together with hundreds of cross-gullies of a type which, when encountered at over 30mph,



L-R: "F Juhan of Czechoslovakia on a Jawa sc at the start of the 1938 ISDT. H Dunz of the NSU works team (NSU 593cc sc on Ffrydd Croesty. Going that involves hard driving to keep to schedule—Jack Williams (348cc Norton), of the British Trophy Team, followed by G Eighteen (498cc Matchless). HGT Smith (Excelsior) leading L Heath (Ariel) up Ffyrdd Croesty.

subjected the machines to a series of frame-shattering blows. Normally, such conditions would cause little trouble, but the exact demands of the schedule speeds produced many retirements.

**Tuesday—second day.** After Monday severe going it was hoped that conditions will be better on Tuesday. To a certain extent this was the case, but there were two 'tight' sections in the morning and one in the afternoon which were to cause not only the loss

of many clean sheets, but also the retirement of German and Czechoslovakian Trophy team members. Actually, the Germans lost two team members and the Czechs one. As each team loses 100 marks per day for each missing rider, these retirements left Great Britain 'sitting pretty' for the trophy. Sharp at 6am the first three riders were dispatched on the 270-mile journey. The route laid in a westerly direction as far as Crymmych Arms in Pembrokeshire before turning back via Tregaron. Several riders who had finished the first day failed to put in an appearance at the start. J von Krohn (597cc Zündapp sc), of the German 'B' Vase team, had dislocated a shoulder while HW Croucher (598cc Panther sc) had done so much damage when he had turned over on Monday's run that he decided to retire soon after the start...The original idea was to have included a steep hill and splash at Pentre Bach, but owing to the flooded nature of the splash this part was bypassed. Meanwhile F Fletcher



"L-R: George Rowley (346cc AJS) of the British Trophy Team, and H McKee (347cc Matchless) snapped at a time check, Rowley is in the act of starting up and setting off for the next control. W Reinhardt (BMW sc), the only sidecar man to win a gold, having a scrap with WS Waycott (Velocette sc) at Donnington. Waycott's Velocette sidecar without comp number boards."

(125cc Excelsior), HN Toomey (493cc Panther), ES Edden (497cc Triumph sc) and IG Davis (348cc Velocette) had retired. Just after Pentre Bach the course climbed over Noethgrug and descended into a valley, across a watersplash and up the other side to Llanfair-ar-y-bryn. This last hill included two acute bends, which provides some interesting performances. The little 98cc Fichtel and Sachs machines came up in style—they have an ordinary three-speed cycle-type hub gear. TG Meeten (172cc SOS) looked happy and confident, and the three German Trophy DKWs performed more like racing 250s than 175cc machines. R Settsam (494cc BMW) misjudged the first bend and was nearly run into by P Head (346cc Enfield). FW Clark (346cc New Imperial was neat in spite of having met a lorry head on in a narrow lane a little way back. GE Rowley (346cc AJS) and R MacGregor (499cc Rudge) were both pretty to watch. Capt G Wolf (597cc BMW sc) of the German army team, rounded the bottom bend in a magnificent power slide with his passenger leading out as far as possible. He was followed by sturdy Sergeant DT Dalby (498cc BSA) of the Royal Tank Corps team, who made a splendid climb. S Moran (347cc Matchless) of Ireland and G Meier (494cc BMW), the German TT star, were both amazingly quick. On the whole the foreign riders were rather vicious with

their throttles on the bends, in contrast to the British riders, who preferred to open up after the bends. This applied more to the side than to the soloists...just beyond the Dyffryn control the Czechoslovakian Trophy team sidecar driver was forced to retire with engine trouble and with him went all Czechoslovakia's hopes of winning the trophy. Near here, F Walter (593cc NSU sc) charged a wall and turned over, but while both driver and machine were undamaged, the passenger, Preiz, was unfortunately seriously injured. Before the lunch check R Demmelhauer (175cc DKW) of the German Trophy team had a puncture and lost three marks on time. A little later T Barnes (997cc Ariel sc) was forced to retire with sidecar chassis trouble. D Holland (349cc Triumph), A Fletcher (348cc BSA) and A Colcombe (347cc Ariel) also retired at the lunch check. on the whole of the return run was easier than the



"L-R: Miss Marjorie Cottle (249cc Triumph) and Mrs L Anning (248cc BSA) were the only women riders in the trial, and they both performed outstandingly well. It was unusual to find riding numbers running in sequence miles away from the start. Here are Nos 73, 74 and 75. CN Rogers (346cc Royal Enfield), H Fruth (494cc BMW) and E Gordon Bennett (497cc Ariel) on Bwlch-y-Groes. Many watersplashes were encountered during the week. It was in part a trial by water! Here is F Linhardt (NMW) leading D Renooy (350cc Eysink) through one of the shallower splashes."

outward run...Back in Llandrindod Wells many riders changed their tires, but very few British riders found this necessary. It was noticed that nearly all the German sidecar machines had worn down the tread of their tires until they were practically smooth...Before handing in the machines each night both the German and Dutch BMW riders carefully washed their cylinders and rocket boxes with paraffin. Harold Flook (596cc Norton sc) changed an inlet valve spring and then discovered that his rear forkend had fractured. Not even Flook could overcome this trouble, and he decided to retire the following day. It was noted that before each Czech driver handed in his machine he ran his engine for some distance with the air lever closed, presumably to ensure an easy start for the following morning. It had been a strenuous day and coming on top of a severe first day, it produced a crop of 57 retirements. Great Britain's trophy team was still intact while both of the Irish and Dutch Vase teams were without loss of marks and so were the British and German 'A' teams and those from Czechoslovakia and Sweden. The two retirements cost the German Trophy team 200 marks and the Czechoslovakian team was penalised to the extent of one 104 marks.

Wednesday—third day. So severe had been the conditions that by Wednesday night

out of 209 starters only 106 were still running and of this number only 72 were still qualifying for gold medals. Even Stuart Waycott (595cc Velocette sc) of the British Trophy team, lost 17 marks on time. But this did not unduly perturb the British team, for since Tuesday they had had the trophy 'in their pockets'. While there were seven Silver Vase teams complete at the start of Wednesday's run, only three were intact by the evening. They were the British team, the German team, a trio of German army riders and the Irish 'B' team. Very much the same state of affairs existed in the Hühnlein Trophy team contest. Out of 27 entered, only two arrived at the finish of Wednesday's running intact; to everyone's delight one of these was the Tank Corps team, consisting of sergeant DT Dalby and corporals FM Rist and R Gillam, all on 'Gold Star' BSAs. Their rivals were a team entered by the Touring Club of Germany, the DDAC. Wednesdays run was the same as that for Tuesday, except that it was tackled in the reverse direction. No fewer than eight riders retired at the start, including HJ Flook, (596cc Norton sc), whose rear fork had fractured the previous evening.



"L-R: The Czech Trophy Team—A Vivtar, V Stanislav, R Protiva (247CC Jawas), F Juhan (590CC Jawa sc). G Meier (BMW) of Germany's 'A' Vase team, battling with the mud on Ffyrdd Croesty. GB Trophy Team on 350s—GE Rowley (AJS), J Williams and VN Brittain (Nortons) and WS Waycott (598CC Velocette sc) with V Munday."

Thursday—fourth day. Before the difficult Abergwesyn-Tregaron section was reached Morris Greenwood (346cc New Imperial) was compelled to give up. Maurice has competed in every 'International' since the first one in 1913. Just before the lunch check B Stronge (246cc Matchless) was hit by a German sidecar outfit. His machine was so damaged that he was forced to retire...HR Taylor (997cc Ariel sc) stopped to render assistance to J Hecker (597cc Zündapp sc) who had turned over. In trying to make up time, Taylor was forced to take risks over the cross gullies with the result that his sidecar chassis fractured and he was forced to retire...The Dutch rider J Roest (494cc BMW) came to a standstill with a stone jammed in his front wheel. G Meier (494cc BMW) was outstanding neat, as were WA West (497cc Ariel) and Sergeant JT Dalby (499cc BSA). Mrs M Anning (249cc BSA), Alan Jeffries (247cc Triumph), Len Heath (497cc Ariel) and Tyrrell Smith (349cc Excelsior) were also excellent. Little H Klopfer (98cc DKW) slid round broadside on the descent to the watersplash at Gwenddwr, but his model is little heavier than a bicycle, he was able to heave it straight without any difficulty...Lance bombardier TA Tracy (499cc Norton) of the Mechanisation Experimental Establishment, Farnborough, was forced to retire with a fractured rear spindle. At the finish there was

little excitement, but there was a noticeable lack of sidecars. Actually only seven outfits were still running—seven out of 37 starters!...In the Hühnlein Trophy contest, the Tank Corps



"L-R: A good impression of the steepness of Fron Bache showing J Forstner (BMW) of Germany's 'A' Vase team, helping the model up. Fiveways, Llandrindod Wells—crowds lining the streets near the Automobile Palace watching the ISDT. A general view of the lunch check at Cray. The narrow approach proved to be a considerable disadvantage and greatly hindered the working of the control. One of the British Trophy team, George Rowley (AJS), giving the crowd on Talog an exhibition of good riding."

suffered a blow with retirement of corporal R Gillam (496cc BSA). As the German and NSKK team had lost only one mark they now tied with a German SS team in this contest. Never in the memory of some of Europe's most experience riders has an 'International' included such a gruelling day's run...After passing through Dinas Mawddwy the riders were faced with the ascent of that long, telling climb, Bwlch-y-Groes, the summit of which were shrouded in low cloud. F Fletcher (125cc Excelsior) cruised up gently, and H Klopfer (98cc DKW literally 'buzzed' up. While most of the 'babies' tore up, H Herrmann (98cc DKW) had to sit sideways on the saddle and paddle up scooter wise... After Vron came the ascent of Allt-y-Bady and the descent of Dol-y-wern. The former was easy, but the latter was slippery and caused several spills. In this extremely difficult section G Wolf (597cc BMW sc) retired with a broken sidecar chassis... Many of the machine for showing signs of spills. Mrs ML Anning (248cc BSA) had written half the day without one footrest, while B Kratzer (98cc F&S) was without a front brake cable and K Zimmerman (494cc BMW) had swept off his foot gear change. However he had his hand lever as an auxiliary. Even riders like George Rowley had left their models during the day, but in his case it was partly due to a damage break. During this days run Britain's 'A' Vase team, which had been riding so magnificently during the week, lost one mark, leaving the German 'A' team the only one still running in the Vase competition without loss of marks. No team finished the day without loss of marks in the Hühnlein Trophy contest, but two—the NSKK 'B' and the SS were leading with one mark between them. Only two club teams, the Sunbeam 'A' team and the German army VFHM club team were left unpenalised. Friday—fifth day. By Friday morning only 89 riders were left in the trial89 out of the 209 starters! This factor alone tells the tale of the 20th International Six Days Trial. Friday's run was much the same as Thursday's. It was difficult, but improved conditions and revised schedules at certain points made the going slightly easier. The course was the same as on the



I wo German

competitors thunder through a Welsh village past an admiring gang of local lads—this striking image appeared on the front cover of the German magazine *Motorrad*.

previous day except it was taken the reverse direction, and that one section near Bidno bridge on the old Aberystwyth road was cut out at the last minute owing to the depth of the water splash. For once it was not raining at the start. Possibly on a count of this, the writers still left in the trial were more talkative than usual when waiting to collect the machines. Anyway, several did not hear their numbers called out and were promptly penalised marks for not being on the line at their correct starting time. In this way Miss Marjorie Cottle (249cc Triumph lost one mark and with it her gold medal. Everyone was very sorry for Marjorie for if anyone deserves a 'gold' in this year's trial, she does and her brilliant riding on the previous days with a talk of the trial. The route led northward via Carno and Dol-y-wern, up Vron, the infamous Hill, which caused all the trouble on the previous day. As might be expected, C Edge (498cc Matchless) romped up in style for the hill is practically on his back doorstep. From the top of the hill, the route plunged down to Lake Vyrnwy and onto the Hirnaut pass. Then came the Cross Keys control and the lunch check at Loggerheads, and an excellent lunch it was too! Here within 20 yards of the control, JC Edward (499cc Rudge) skidded broad side of fell. He received slight

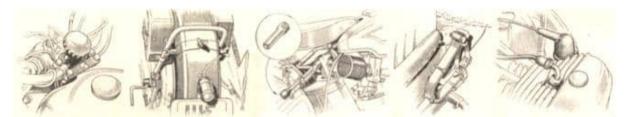
concussion and later spent so long straightening the machine that he lost two marks on time. That night medical examination disclose a fractured rib but Edwards announced his intention of continuing. After lunch, the riders are faced with the ascent of Vron. As expected this steep, grass-grown sense, caused a big delay. Riders literally dropped with exhaustion and when such stars as Hugh Sim and Jack White cannot reach the summit, something must be wrong.



"A fine view of the Tregaron splash with the mountain, down which the riders have to descend, in the background. The Mariners are the German W Mundhenke (BMW) and his compatriot H Herrman (DKW). Top right: H Zuur of Holland about to take his BMW outfit down Tregaron Hill. Lower right: FE Thacker (Triumph) of our Vase 'B' team in a picturesque setting."

Owing to delays, many riders lost marks through no fault of their own. Among them were Mrs ML Anning (248cc BSA) and Miss M Cottle (249cc Triumph), both of whom have been riding brilliantly. As the day progressed the fine weather helped to dry up the course. In spite of this Vron required every caution. Even George Rowley (346cc AJS) said that he went down with his front wheel locked and both feet planted in the grass in mud...JA Leslie (499cc Rudge) of the British 'A' Vase team fell victim to a most unusual form of trouble; the front-wheel drive speedometer locked and threw him off...Strangely enough precisely the same trouble had befallen Jack Williams (348cc Triumph) on the previous day. Descending Bwlch-y-Groes H Klopfer (96cc DKW) fell foul of a sheep which, if his story is to be believed, ran off with one of his side numberplates...The last section of all from Glan Llyn to Llandrindod Wells—14¼ miles of muddy tracks with very little road on which to make up time—caused a lot of trouble and nearly all the riders

found themselves so short of time that they had to ride straight in without filling up with oil and and petrol...The rear tyre of Gordon Woolsey's Triumph twin began to go down rapidly as he filled up, but he was unperturbed, for he knew he could put the trouble right in the time allowed him in the morning before the start. Mrs M Manning, (249cc BSA) arrived very late, but still fresh and smiling—a surprising fact really, for Miriam had had a worrying time in the past two days with an ailing engine and trouble with other components, due chiefly to a spill early on Thursday. Another who smiled in the face of adversity was J Southall (348cc Norton) the RAC guide. He had tackled a type of going quite foreign to him, but he had stuck it so far and was determined to finish. Of course it just had to rain hard at the finish of the day's run and in consequence the spirits of the remaining ride as were still further damp. **Saturday—sixth day.** 



L-R: "The spring tongue to prevent the steering damper knob from turning on the RTC BSAs. The quickly detachable rear half of the mudguard of the NSU 250s—it is secured by three wingnuts while the lamp is also readily detachable. The RAC and Army team Nortons have wheelbraces under the saddles and (inset) adaptors for wheelnuts carried in the toolbag. The rear springing on the BMW sidecar with self-lubricating sliding block. Waterproofing on the BMWs: a rubber cover over the mixing chamber and carburetter control and waterproof plugs."

At the start on Saturday morning the Trial bid farewell to Llandrindod Wells, whose people have been so kind and helpful. A large crowded gathered to cheer the remaining riders off on the way to Donington, and it was with a a sigh of relief that the riders departed, for gone were the muddy lanes, the cross-gullies and the watersplashes that made the week such a nightmare. Instead, moderately good roads lay ahead and there remained but the speed test at Donnington—frightening enough for those with tired motors, but not to be compared with the horrors of those Welsh mountain tracks. In some ways Saturday was disappointing after the thrills of the week. All interest in the destiny of the Trophies had gone. The International Trophy was ours while the silver Vase was almost bound to be won by Germany, providing The German team completed its required number of laps at Donington. Soon after start CN Rogers (346cc Royal Enfield), a member of the Sunbeam 'A' team, which had not lost any marks, found his front spindle fractured. A hasty temporary repair got him as far as Donington, but any further attempt to finish out of the question, so Rogers had to retire. A total of 81 riders started on this the last day, only 40 with clean sheets. With Rogers' retirement at Donnington. This number was reduced to 39. At Donington, the weather was fine until soon after the first batch riders had been dispatched...Most of the machine started without difficulty,

but curiously enough the last to start were the two ladies, Mrs Anning and Miss Cottle...It was interesting to note that R Demmelbauer (173cc DKW) of the ill-fated German Trophy team, was able to keep up with nearly all the 250s and several 350s...JC Edward (499cc Rudge) who had covered the last



"L-R: In an endeavour to help their drivers maintain the difficult speed schedule sidecar passengers often indulge in acrobatics: here are F Walter (593cc NSU sc) and his passenger on a hairpin bend at Gwenddwr. A typical bit of Wales: W Pfeiffer (348cc NSU) and a BMW rider tackling the watersplash at Gwenddwr. Britain's Trophy team riders lapping Donington in the final speed test: George Rowley (AJS) followed by Jack Williams and Vic Brittain (Nortons)."

two days with a fractured rib, pluckily achieved his schedule—a really wonderful effort—and J Southall (348cc Norton) ran out of petrol just as the maroon went off...there were no sparks flying, except from Vic Britain's central stand which periodically trailed on the ground...K Zimmerman, F Linhardt and L Patina, all on BMW, jockeyed with one another for the lead and produced the only excitement. Before the third heat, which contained most of the likely team winners in the Vase, Hühnlein Trophy and club contest, could start the riders had to wait on the line until a heavy downpour of rain eased up...MacGregor led the heats for lap after lap until near the finish he failed to appear. The minutes passed, the maroon went off, and poor Bob had lost his gold. The German riders in the heat were obviously riding to orders, and when the maroon went off Meier led his men in as winners of the silver Vase. The speed test was a complete anti-climax to the most arduous, International Six Days Trial since the series started in 1913. In view of the severity of the trial all who finished after to receive a special award. THE TEAM AWARDS. International Trophy winners—Great Britain: GE Rowley (346cc AJS), V Brittain (348cc Norton), J Williams (348cc Norton), WS Waycott (595cc Velocette sc). Marks lost, nine. Runners-up—Czechoslovakia: A Vitvar (247cc Jawa), V Stanislav (247cc Jawa), R Protiva (247cc Jawa), F Juhan (590cc Jawa sc). Marks lost, 545. International Silver Vase winners—Germany: G Meier (494cc BMW), R Seltsam (494cc BMW), J Forstner (494cc BMW). No marks lost. Runners-up—Sweden: F Larson (496cc Zündapp), A Laren (494cc BMW), C Hedelin (490cc DKW). Marks lost, 5. Third— Great Britain, JA McLeslie (499cc Rudge), R MacGregor (499cc Rudge), WT Tiffen (349cc Velocette). Marks lost 8. Fourth—Ireland: S Moran (347cc Matchless), T Stewart (346cc Royal Enfield), RC Yeates (349cc Triumph). Marks lost, 14. Hühnlein Team Trophy

winners—SS: L Patina (494cc BMW), K Zimmerman (494cc BMW), W Mundhenke (494cc BMW). Marks lost, 1. Total time gained at Darlington, 13min 29sec. Runners up—NSKK: W Schaefer (494cc BMW), H Fruth (494cc BMW), H Lodermeier (494cc BMW). Marks lost, 1. Total time gained at Darlington, 10min 11sec. Bowmaker Club Team Trophy winners—SS: L Patina (494cc BMW), K Zimmerman (494cc BMW), W Mundhenke (494cc BMW). Runners-up—NSKK: W Schaefer (494cc BMW), H Fruth (494cc BMW), H Lodermeier (494cc BMW). FICM gold medals (for Manufactures' Teams—none awarded."

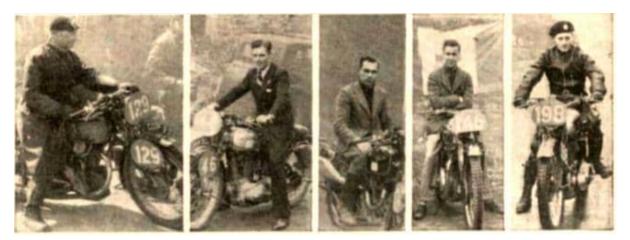
YOU'LL FIND A SHORT newsreel of the 1938 ISDT on youtube: <a href="https://www.youtube.com/watch?v=AtfZPF-zDIE">https://www.youtube.com/watch?v=AtfZPF-zDIE</a>



L-R: Dutch Vase 'A' team: J Bovee, AP Van Hasmmersveld, J Roest (all on 500 BMWs). German Trophy team: H Scherzer, W Fahler, R Demmelbauer (all 173cc DKWs), and an un-named Jerry on a Beemer combo. The Royal Tank Corps team: Fred Rist, R Gillam and JT Dalby (all on Goldies). The Tank Corps collect the cup for Best Army Team from *Motor Cycling editor* Graham Walker.

"LAST WEEK'S INTERNATIONAL Six Day Trial might be likened to a damp squid and not merely because of the weather in Wales and later at Donington. The fact is that after the second day the main interest in the trial disappeared because in the contest for the International Trophy only Britain had a complete team. Germany lost two of her four representatives on that day and Czechoslovakia one. Thus, it was almost a certainty that Britain would prove the winner. That this should rob the event of so much interest shows how, in this trial of trials, the trophy competition is paramount. While Britain won easily, Germany had the lion's share of the remaining awards for she won the International Vase, the Hühnlein competition and the Club team prize. She also gained 14 of the 33 gold medals to be awarded; Britain won 12; Holland, 3; Czechoslovakia, 2; and Sweden and Ireland 1 each. To compare results on a basis of the number of entries per gold medal is of little value. With some countries, the competitors consisted almost entirely of picked men, while with others many of those taking part were competing for the sake of a sporting holiday, often without real knowledge of the International and with machines far from suitable for the work in hand. Because of this it is easy to gain a false impression of the reliability of the modern motor cycle. This year, largely because the British Army had entered three teams, the daily press were presents on the trial in force. Their descriptions as a whole were better than ever before. Inevitably, however, the reports spread far and wide the fact that of the 209 starters well over half—actually

127—retired. These retirements in numerous cases had nothing to do with machine reliability—even in this trial, the most Six Days ever held.



"These competitors went home smiling—they all won gold medals. L-R: HGT Smith (349cc Excelsior), A Jefferies (249cc Triumph), W Tiffin Jnr (349cc Velocette), A Archer (497cc Ariel), FM Rist (498cc BSA)."

No doubt the ACU, after being told that last year's course was too easy, decided, 'Well, that shall not be so this time!' The net result was a 1,495-mile 'road' course that, by reason of its nature, the high-speed schedules, and the settings of the frequent time checks, was more severe, even than the German trial at Oberstdorf. The ACU did magnificently, but the fact is that Britain, a country in which roads cannot be closed, is not suitable for such a trial. The competitors, if the test is to be sufficiently severe, are liable to be endangered. There is no doubt that for certain classes—notably the sidecar class—there was real danger. Much discussion will result from last week's trial. In the opinion of many it is only the few among the competitors who have brought riding in the International, a trial which is entirely different from the normal run of events, to a really fine art. There is also the important point that a member of a trophy of vase team not only has to ride to ensure his team winning, but to use every endeavour to gain a gold medal for the maker who has entered him. These two interests can be diametrically opposed. Obviously, if a team is 'sitting pretty' for the vase or trophy with a win assured provided the members of it do not retire, that team should not take the slightest risk. It can be better to lose marks on time and therefore gold medals rather than risk retiring altogether. This team question is important, for it might in some future competition prove a problem. The final question is, 'Where will next year's trial be held?' Various countries have been discussed as possible venues—Germany, France (with Grenoble as the centre), Switzerland, Italy and even Sweden. At the moment it is likely that Germany, our excellent hosts in 1934 to 1936, will be interested with a task."



The Green 'Un's artist shared some sketches of the ISDT.

"THERE ARE SEVERAL surprising features about the 'trials business'. Next Sunday the Auto Cycle Union is itself organising a Sunday trial—the inter-centre event—although the joint committee on trials, while it did not ban Sunday events, certainly conveyed by its comments that trials on Sundays are, in its opinion, a bone of contention. The fact is that such trials are the cause of much of the antagonism which forced the Ministry of Transport to say that either the trials world put its house in order or trials would be made illegal. And not only is the ACU promoting a Sunday event, but it is also setting rather a poor lead to the club world by using for its first standard-tyre trial a course on the same lines as one originally picked and used for competition tyres. I mention these points; they formed a major topic of conversation among a number of famous trials riders at the start of the Southern Trial last Saturday. Another topic was the abandonment of the Lancashire Grand National, that annual race over Holcombe Moor, near Bury. The cause of its abandonment is the insurance difficulty that has arise over scrambles—that question of third-party insurance that has been discussed so thoroughly in these columns over the past couple of months. You might expect that those who compete in this famous event are bitterly disappointed. Some may be, but by no means all of them. Two very well-known riders—men who are invariably around the top of the finishing list in the Lancashire Grand National—are delighted. They mutually congratulated each other in my presence last Saturday, one saying that it was the best bit of news he had heard for a long time. They are trade riders, and I said, 'Why, is it hard work?' By 'hard work' was meant sheer penance owing to the battering the human frame receives in charging across such rough stuff. 'No!' replied one, 'I am frightened of smashing myself up.' The other, who is one of the most tenacious beings I know, smiled and said, 'Perhaps the body (meaning his own) is getting old.' As it happens, the Lancashire Grand National is one of the few events it has not been my good fortune to watch. All scrambles are dangerous to the man who is determined to win: precisely how dangerous this one is I do not know, but I am only too well aware that so far as other scrambles are concerned there are many in which far too little consideration is given to the competitor and his safety."—Nitor

"FOR THE FIRST TIME in the history of the Southern Trial the organisation of the event was entrusted to a South-Eastern Centre Club instead of being run by the Centre itself. It was the Sunbeam MCC who undertook the running of the trial and the Club ran the event on similar lines to the 1937 'Southern'. In addition to the observed hills there was

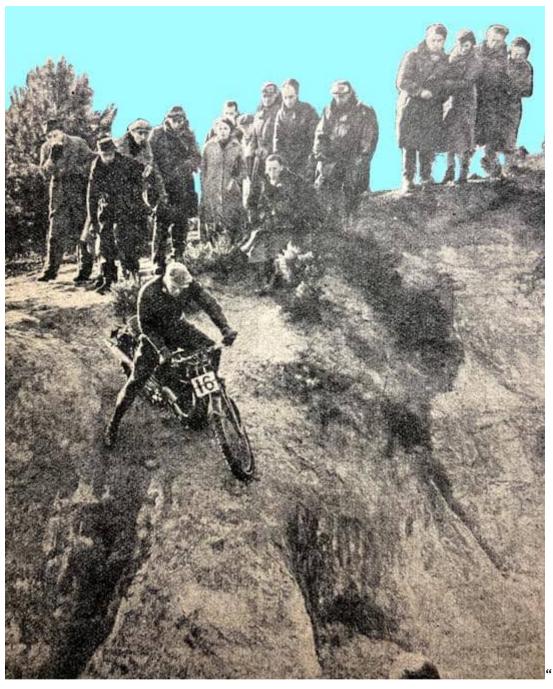
a series of special tests and performances in these as well as on the hills counted for the allocation of the awards. The trial was run on standard tyres and lamps that worked had to be carried, so that at the start the competing machines looked very 'standard'. The starting point was Rushmoor Arena, where the Aldershot Tattoo is held every year, and as there were several Army entrants and the Championship Trials of the Army are in the offing, there were a number of Army people at the start to me how things were run. The Arena proved a very suitable point from which to start a trial, and particularly this event, for one special test and a machine examination were carried out before the trial proper began. Competitors waited outside the enclosure and were admitted in numerical order. Inside [Brooklands regular and tuning ace] Francis Beart checked over each machine. The regulations required that machines should be clean, that all lamps were working correctly, that the mudguards were up to regulation, that tyres were not in the banned list, and, finally, that pump-fuel was in the tank. Len Heath (497cc Ariel) surprisingly lost marks because his rear lamp was not working and H Tozer (496cc BSA sc.) could not get any of his lamps to function. Only one man had 'stink' lights—Harold Taylor—but George Hadfield (570cc Royal Enfield sc) had a torch for a sidecar lamp. Immediately after the examination came an easy starting test. Competitors were required to start their engines at a signal and ride a short distance to a second line within seven seconds. Most people followed the example of LG Holdsworth (499cc Royal Enfield) and GA Wolsey (349cc Triumph), both of whose engines started instantly. TC Whitton (346cc AJS) had to give two kicks, as did JM Heanes (347cc Matchless), but Heanes' machine obviously had too rich a mixture, for the exhaust pipe belched black smoke as he rode to the second line. VN Brittain (490cc Norton) caused a stir by standing at the side of his machine and using his left foot on the starter. At the signal he gave one jab on the starter and immediately threw his leg over the saddle, confident that the engine would start—as it did. The first hill was close at hand on W.D. land. It was called Hungry Hill and consists of a narrow, steep track with a surface of deep sand. It was not really difficult, but competitors were started right on the gradient and were given only a few yards in which to get their feet on the rests. Surprisingly enough, it caught several of the experts napping, and J Williams (348cc Norton), L Heath (497cc Ariel), and GF Povey (348cc Ariel) all footed, while WA West (497cc Ariel) stopped. Next followed a timed hill-climb and, after several miles of country lanes, a brake test. When he arrived at the brake test, J Douglas (348cc Royal Enfield) discovered that his gear lever was missing and he could not remember how far back along the course he had last changed gear. He carried on, using a spanner to alter the ratios. The brake test was a straightforward affair in which riders were timed over a short distance and then had to brake before a third line. AS Herbert (347cc Matchless) overdid the acceleration and in his efforts to stop on the loose surface he locked the front wheel and collapsed right on the third line. After this came four observed hills, but the first of these was by-passed at the last moment owing to a 'shoot' being held in the vicinity. Of the other three, Higher Oakshott and New Warren were reported to be in good condition.



L-R: "Dennis Mansell (490cc Norton sc), winner of *The Motor Cycle* Sidecar Cup, makes a fine climb of a difficult hill which was part of the 20mph section on Army ground. Winner of the 250cc Cup, JH Amott (249cc BSA) caught in a typical balancing attitude on a tricky part of Wyck Hill. Fighting hard to cut down wheelspin and yet retain his speed—GF Povey (348cc Ariel) in action on Hungry Hill."

Higher Oakshott proved to be a very narrow track between trees, up the side of a range of hills. It was almost dry, and in order to make the hill difficult an artificial 'S' bend round some trees was introduced about three-quarters of the way up. Unfortunately, the bends were made too sharp and the riders were quite unable to see what they were expected to do as they came up the hill. As a result, no one negotiated the bends without footing. At the top of the hill was a sharp right turn. The corner was marked with direction cards, but for some reason several competitors continued straight on and turned right at a fork some yards farther on. This turning rejoined the course again but after New Warren so these competitors missed a section. New Warren consists of a track containing two sharp bends, one left and one right, and is farther along the same range of hills as Higher Oakshott. The bottom bend was greasy, and a number of people footed. Of those seen here, EJ Heath (497cc Ariel) was the best; he shut off his engine to prevent wheelspin as he rounded the steepest part of the corner. Pte AC Doyle (348cc BSA) of the Tank Corps was as confident and neat as anyone. On the top hairpin the main obstacle was a big tree-root, which protruded out of the ground and ran right across the track, forming a considerable step. FE Thacker (349cc Triumph) took the inside of the bend where the step was steepest, got over it successfully and then had to foot to regain control higher up the hill. Mrs RB Gibbs (348cc Norton) failed on the step, and on the second attempt rode the corner perfectly. Easily the most spectacular was Pte JL Wood (348cc BSA); he approached the corner on the outside in the correct style, rode over the step, but got broadside on and the machine toppled heavily down the hill. When the sidecars came along their drivers all told tales of woe concerning their performances on Higher Oakshott. It seemed that nearly everyone had stopped low down because a narrow gate near the bottom prevented rushing tactics. DK Mansell (490cc Norton sc), however, got up the bill non-stop. At New Warren he was not so lucky, for his outfit crabbed into a log at the side of the track before the second corner. H Tozer's BSA outfit did the same thing, only slightly harder. Harold Taylor (497cc Ariel sc)

successfully passed this fatal spot, and although he was losing speed he got up the hill and round the corner as far as the step, where wheelspin beat him. Late in the entry came WS Waycott (495cc Velocette sc) to make the only clean sidecar climb of the hill. Four miles farther on was a flexibility test consisting of two consecutive sections, one of which had to be ridden slowly and the other fast. Times were taken and the 'fast' divided into the 'slow'. GA Wolsey (348cc Triumph) returned the best figure of merit. Shortly after came the sting in the tail of the trial. It was eight miles of rough, sandy tracks over the WD ground known as Longmoor and Weaver's 's Down. In this eight miles were three observed sections marshalled by members of the Tank Corps. The crux of the whole thing was that the schedule speed for solos was raised to 30mph and for sidecars it remained at 20mph. Baulks or claims for delay were not allowed. Gullies, deep sand and stones were the main ingredients of the surface, and, in addition, there were the three observed sections which were purposely on the easy side to avoid delays. As it transpired, several soloists managed to arrive at the final check within their three minutes' late allowance, and although no solo was early, nearly all the sidecar men averaged the required 20mph. At the check there were many stories of hectic moments over this section and nearly every sidecar outfit had capsized at least once. Immediately competitors arrived from this gruelling section a machine inspection was carried out. Very few people were in trouble and lights were again the only weak spot. There was just one more test, this time a driving test, before competitors were free to disperse. It consisted of three hairpin bends marked out with stakes and tapes on a level piece of ground. Each bend was so sharp that it required a freak lock to negotiate it. A number of the solo riders got round the bends without footing, among them being JH Amott (249cc BSA), who gave a wonderfully polished display of balance. It was generally agreed, however, that the test was stupid for solos and it certainly looked impossible for a standard machine. For sidecars it was no test at all, but merely a question of whether the outfit had sufficient lock and a sufficiently narrow chassis. H Tozer's BSA outfit had the requirements and he just crept round the bends without trouble. When the results were worked out it was found that most of those people who had done well on the hills had also been good in tests, and the solo winner, VN Brittain (490cc Norton) had dropped only one mark in the tests and five on observation. RESULTS. The Motor Cycle Solo Cup: VN Brittain (490cc Norton), marks lost on observation, 5, on tests, 1, at checks, O. The Motor Cycle Sidecar Cup: DK Mansell (490cc Norton sc), 15, 11, O. Carshalton Cup (best 250): JH Amott (249cc BSA), 6, 3, O. Sydenham Cup (best 350): A. Jefferies (349cc Triumph), 3,3, 1. Sunbeam Cup (best unlimited): L Heath (497cc Ariel), 8, 3, O. Brighton and Hove Cup (sidecar runner-up): WS Waycott (495cc Velocette sc), 20, 23, 0. Manufacturers Team Award: Norton (J Williams, R Dee, VN Brittan). Club Team Award: Sunbeam (L Heath, CN Rogers, GA Wolsey)."



experts only: RJ Allen carefully eases his 350cc Triumph down the precipitous slope of The Cutting, a difficult section of the Southern Experts' Trial course."

FOR YEARS THE NAZIS had been training motor cyclists who would be at the forefront of the blitzkrieg. Now the British top brass also grasped that motor cycling, particularly offroad motorcycling, was a useful military skill as well as building fitness and confidence. The Army Chamionship Trials (based, inevitably, at Aldershot) attracted 42 three-bikes teams of military personnel from England, Wales, Scotland and Ireland; the public was invited to watch the fun.

"TO THOSE ONLOOKERS accustomed to ordinary motor cycle trials, the Army Motor Cycle Championships held last Friday and Saturday were in some respects a little incomprehensible. What can be thought when you see one individual ride three different machines up the self-same hill? The fact is that this, primarily, was a team event. While competitors rode as individuals on the first day they were also helping (or spoiling) the chances of their teams, and on the second and final day self counted as nothing—except in so far as 'self' helped along the team. The event had been made extremely difficult—purposely so. What had occurred previously was that each of the Commands, Aldershot, Eastern, London District, Northern, Northern Ireland, Scottish, Southern and Western, had held eliminating trials to determine which of the Command teams was the best. Then came these Championships which were run by the Army Motor Cycle Control. The organisation was magnificent throughout... A number of the had only been riding motor cycles a matter of months, which makes their achievements in the trial little short of extraordinary. For the first day there was a course 145 miles long. When the details from the programme are set prosaically in print and it is found that the morning's run merely contains a mud section, a sand section, a watersplash and a stop-and-restart test it does not seem that there is much to it. However, when it is added that the time checks were denoted by map references and that the routemarking ceased four or five miles beforehand, and the schedule including mud, sand and map-reading was 25mph, the task takes on a very different complexion. It is small wonder that at the finish of the day's run there were men who rode for the Army in the last International Six Days Trial who said that some of the checks were considerably 'tighter' than those of the 'International' itself. And it is not as if there were miles and miles of easy going; the day's run was a hard grind almost from beginning to end, while the various sections were very difficult indeed. Take the first section as an example. Here was a mud patch about 25 yards long and at places nearly hub deep. This does not sound too bad, but it is one thing tackling deep mud on the level



"On the cross-country competition the teams were faced with the mud bed of what was once a large pond. Through this the teams of three had to haul their machines."

or uphill, and quite another when that mud is approached by a downward swoop as was the case near Crookham. Very, very few civilian trials riders would have done more than scramble through with the aid of their feet even with their special competition mounts. It was hardly surprising that the tow gang was busy...What with lanes, tracks and other difficult going—not to mention riding parts of the course by map—competitors found it very difficult indeed to keep to the high schedule. The result was that at the sand section near Kingsley the first men were decidedly behind the time mentioned in the programme. This sand section consisted of about a mile of track that was sandy from start to finish and at one or two places some six inches deep. The worst part was where the track dived into what appeared to be a one-time sandpit. The drop was quite gentle, but the sand fairly deep and rutted. Again it was a case of a section which if tackled on the level or uphill would have been comparatively easy, but approached downhill was definitely a teaser. As it happened, there was good, hard going at the sides of, the track, but no sooner were competitors over the brow and in front of the crowd than they were in the furrowed sand. The first man, Cpl L George (Norton), 10th R Hussars, turned up the wick, got into a front-wheel skid and went roll, bowl or pitch. Capt RS NcNaught, 2nd Bn R Scots Fus, was equally determined and decidedly wild, but corrected each skid with his feet. The first to sum up the situation as he crossed the brow was L/Sergt W Inglis, Gordon Highlanders, who immediately noted that there, was hard going on either side of the track, but unhappily for him, toppled over in his efforts to reach it. Sergt E Vale, 1st Bn HLI, was better; he got safely on to the good going at the side of the track, and then, having managed without footing until the last yard or two, his machine

became entangled with a mass of wire, including barbed wire, that lay, beside the track. The wire was wrapped around both wheels, and right around the front brake drum.



"A sight typical of the cross-country section—a weary team, that of the 5th Divisional Signals, getting one of their machines over the brow of the loose earth track up Beacon Hill."

Stoically he got out his pliers and set to work—cutting and heaving at the strands....The next really bad section was the Headley Park watersplash. Here competitors had to forsake the road for a 50-yard stretch of the River Wey, which at this point was running swiftly and in places was hub deep. Not only was this so, but there was a drop down the bank into the river and a very difficult turn up a still steeper bank at the far end. It was obvious that the competitors had learnt much since the earlier trials—even since the Aldershot Command event just over a fortnight previously. Had it been an International it is questionable whether the general standard of riding would have been appreciably higher. The majority had to have assistance in getting up the steep and slithery four-foothigh bank. One of the few to get out without apparently any help at all was Pte Ireland, 2nd Bn Dorset Regt. From here the course led to a stop-and-restart test and lunch! Already many competitors were very, very tired. Riding the stiff course in normal motor cycle kit would have been pretty hard work, but these men were riding in steel helmets and carrying respirators, water bottles, packs containing their greatcoats, mess tins, and so on, and many, as mentioned, had only been mechanised a matter of months. After lunch there was Boulder Alley, near Thursley, a hill with a gradient of 1 in 5 to 6, and mighty rock steps—serried ranks of them. This would not have been too bad had the hill been dry, but it was covered with mud and skid-provoking slime. Boulder Alley was just about as difficult as it has ever been, and after the first few men had scrambled up

would have wrought havoc in even an important competition-tyre event. What with standard machines, mostly side-valve jobs, and standard tyres, the hill proved too much of a good thing. The conditions were against competitors. However, it was magnificent the way they charged the hill, fighting skids, smiting banks—and then struggling to get under way again...Then came the descent of Kilimanjaro, which is a horrid-looking hill to drop down. At Rushmoor Arena, which was the finishing point as well as the start, there were very tired men dropping into the canteen for a cup of tea. The day's work, however, was not yet over. After supper there was the 'Riding without Lights' test. In this the competitors were given three map references and had to find each point in turn, pick up a coloured card from each checker and return to the finish, doing the whole lot at an average speed of 20mph! In actual fact, competitors were allowed some light, but the majority of motor cyclists would have been happier on their pilot bulbs. All that was permissible was the light which passed through a semi-circle of 2in diameter, the base to be in the centre of the head lamp and the circumference below, and the lower half of the reflector had to be covered with black matt paint!



"In parts the mud section on the road circuit was very nearly hub deep. Here is Fus W Santer (Norton), of the 2nd R Innis Fusiliers, being helped through."

The speed with which competitors shot into the first check was something at which to marvel. To watch was thrilling. Competitors not only worked out where the points were and found them, but actually completed the circuit at speeds well over 20mph. So much for the first day. On the morrow there was to be the cross-country riding with

obstacles such as might be encountered on active service—obstacles that would involve team mates hauling and heaving to get each other through. Many, to judge from their comments, did not believe that the conditions could be worse than those they had encountered. Their beliefs were soon swept away! From the Rushmoor Arena, which the first man was due to leave at 1pm, there was sand, some of it deep. Then came a not-too-difficult sandy ascent followed by a very loose steep climb up Hungry Hill. The next test was the eye-opener. Down in the valley is a large pond which has been drained, leaving only mud. Competitors had to get down a ledge, then off a wall some two feet high, over a hummock and up a 1 in 2 bank that has protuberances guaranteed to foul crankcases. And this was merely hors d'oeuvres! Next they had to get themselves, team by team, through the mud lake that was once a pond. It had been stated that the mud close to the line of flags came in places well above the top of a normal pair of gumboots. The task seemed fantastic. Sergt Mitchell, RE, Aldershot, was heaved up the steep hummock by his team-mates and fell headlong into the undergrowth. Another of this team's



"Two teams, the 3rd Divisional Signals and the 1st Bn HLI, on the steep, loose surface of Hungry Hill. Note how two of the latter team are heaving away at their team mate's machine."

machines ran backwards and nearly fetched up in the mighty duckpond. It was realised that if this colossal test of physical strength was left in, the delays would be enormous; consequently the 1 in 2 hummocky bank was outed...First to tackle the mud was Lieut R Money, RE, Aldershot, who was eventually heaved through by his companions. The time taken in the struggle was so long that the other two were sent round. Then came a marvellous dashing attempt by Sergt M. Newbury, who got through merely with footslogging. The other two members of this, the 3rd Grenadier Guards team, had a struggle, and while the trio was busy on the second machine the third mount toppled over in the mud. Meanwhile, an NCO shouted to an officer on the far bank, 'You can

come along, Sir!' Sergt Newbury's feat could not be beaten, for, even while he was charging through, an official was moving the posts so that they marked an easier route. It was still not easy, however, and soon the mud became deeper and deeper and badly rutted. Machines could be left standing upright with impunity. L/Bdr C Foulkes, 6th AA RA, went through close to the newly placed line of flags; his team mates had put a rope on his machine, but he got through unaided. Three magnificent crossings were made by L/Cpl J Vickers, No 1 Sect. RAOC, Pte R Scovell, 4th Bn RTC, and L/Sgt J Dalby, 4th Bn RTC; these last two men were mounted on BSAs. Meanwhile a tractor was brought into use to haul out one of the earlier machines. At first all it did was almost to bury the machine in the mud. Finally, the hawser was attached to the rear stand and the machine hauled out on its side. It became almost unrecognisable as a motor cycle. However, after a minute or two, the game 16H was running again and its rider was on his way to the next of the nightmare tests. This was Beacon Hill, which consisted of a very narrow, extremely rough, and loose climb, which was next to impossible unaided, even given the utmost cleverness in throttle control and path picking. Here Scovell was probably the best of the lot. He shot up standing on the footrests until he hit a young tree at the final 1-in-3 pitch and dived over the side. One by one the competitors struggled up, helped by their team mates. 'Help' is a wide term, for some riders received heaves that caused them to sit down, and others had assistance of a type that reduced any tractive effort the rear wheel might have had. In some cases the leader of a team would try to take up each machine in turn. The determination of all was something extraordinary. Rough



"BSM R Sandell, 2nd Fd Regt RA, forging along the bed of the River Wey."

going followed and then came the Army test tracks at Miles Hill—the last real difficulty of this circuit of less a dozen miles. What happened here was that teams had to shoot down one hill charge up a 1-in-2.7 climb, stop in the middle of it, stop their engines and restart—on a surface. That consisted of loose earth carefully raked over in between each climb. This meant more hauling and heaving, especially for the 24th Fd Regt RA, for one of their men had smashed his kickstart; the three of them heroically heaved the machine inch by inch over the summit with a dead engine. Many had difficulty in finding neutral and starting their engines. Just a few teams had everything organised. One of the best shows of that of 20th Fd Regt RA. Others who were particularly good among the later teams were the 7th Bn RTC, who had matters thoroughly organised and a great stalwart in 2nd Lieut RV Johnstone, and the 8th Bn RTC, who also put up a real team effort. So to the finish of one of the most interesting trials ever held. It demanded much from the competitor, stressing him in many cases almost to breaking point, and assuredly it has taught much.—Torrens. RESULTS. Championship of the Army (Trophy presented by Viscount Gort, VC, Chief of The Imperial General Staff)—4th Bn Royal Tank Corps: L/Sergt J Dalby (BSA), Pte R Scovell (BSA), Pte Beatham (Norton); marks lost, 156. Second—5th Divisional Signals: 2nd Lieut Horsfield (Norton), 2nd Lieut Yule (Norton), Cp. Stowers (Norton); 200. Third—School of Signals: Capt Smith-Windham (Norton), Capt Dobson (Norton), Dvr Baker (Norton); 209. Fourth—Military College of

Science No 1 Team: BQMS Mackay (Norton), BQMS Smith (Norton), L/Sergt Lloyd (Norton); 210."

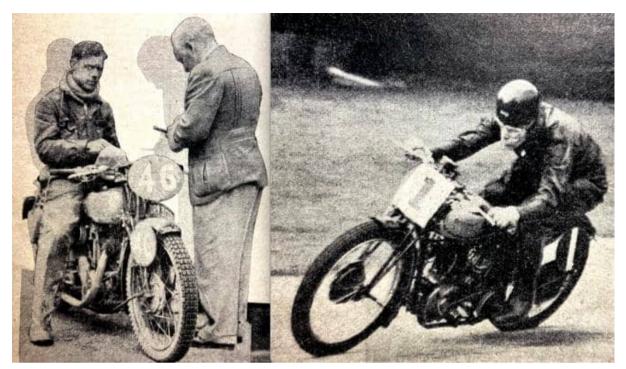
NO DOUBT IMPRESSED BY the Wermacht's BMW and Zündapp sidecar-wheel-drive (SWD) outfits, the War Department evaluated a Norton 16H trials outfit fitted with Baughan SWD. It worked well so Norton produced a 633cc Big 4 version with a sidecar rigged to take a Bren gun. A pillion seat was fitted and the combo proved capable of hauling three squaddies across extremely rough country. By the time the Big 4 opiutfits were superseded by Jeeps in 1941 nearly 5,000 had gone into service.

"AT THE END OF last week one of the most remarkable trials in the history of motor-cycle sport was held in Surrey and Hampshire. The event was the first Motor Cycle Championship of the British Army, run by the recently formed Army Motor Cycle Control Board. Forty-two teams competed, representing Commands all over the British Isles. The importance of the event can hardly be over-stressed. The motor cycle is taking its rightful place in the scheme of things. That it is a great sport and a most valuable training in quickness of mind and action and in developing mechanical knowledge has been known to all connected with the pastime since its very inception. What has seemed almost incomprehensible is that its great merits have not been more widely realised hitherto.

"IT IS VERY INTERESTING to note the increased size of orders placed by modern armies for motor bicycles. These machines were originally, as we all know, of military value exclusively in communication work. Some apprehension was felt that with the growth of wireless for communications the military motor cyclist might tend to disappear. But the reverse has happened. The French, German, American and British armies are all using a far larger proportion of motor cycles than ever, though we are not allowed to be talkative about the exact fashion of their employment. After all, the basic fact is that if you want to render an individual mobile under all conditions, there is nothing to touch a motor cycle. It may encounter weather or surfaces or other conditions in which it is momentarily useless; but the same handicaps will put any transport, including feet and horses, out of action just as effectually; and if progress is possible at all, the motor cycle will keep moving, will ordinarily move much faster than any rival form of individual transport, and will keep on moving indefinitely without becoming exhausted, and without requiring bulky supplies such as fodder."—Ixion.

ALLAN JEFFRIES WAS A WORLD-CLASS trials rider, world-class engine tuner (Sprouts Elder, America's first AMA speedway champion took Jeffries with him to South America to fettle his bikes) and successful motor cycle dealer. 'Wharfedale' reviewed his career to date; here are some excerpts: "When I called on Allan Jefferies the other day and found him in his garage busy preparing his Triumph for the Southern Trial he immediately pointed out that he was only cleaning it in view of the regulation about penalties for dirty machines at the start. 'And what I want to know is, ought I to wear a

carnation or an orchid?'...Allan has always been among the stars in open events. And he remains an enthusiast. He will ride as thoroughly for the Bradford Club in a Centre team trial as he will for Britain in the International, and he will ride the length of the country at night from an open event to take part in a West Yorkshire group trial the next day, or to show up at a club dinner. In short, he is a real motor cyclist and not just a professional jockey. Allan believes entirely in preparing his own machines, but he has no special fads regarding engine tune or mechanical equipment, 'More than half the battle is getting the machine comfortable,' he said. 'I bend the bars and the footrests and alter the saddle position to suit my style. For trials I like a high saddle, because I am long in the leg and I cramp if the seat is too low. But for scrambles, where you may have to foot hard, I often use a low racing saddle, so that I can slide about, and which facilitates using the feet good and proper when you have to.' Before I could frame a question on the point, Allan went on to the matter of standard tyres. 'They are all to the good. I like 'em, for they are at least comfortable on the road, and when you make long, fast journeys as I do you appreciate that they are much safer on main roads. I believe in riding to and from events. I never use a trailer, and if I do go by train it is only for convenience in night travel due to the rather awkward location of Shipley. Take the West of England Trial, for instance. I ride to Birmingham and then get a train from there onwards. Another thing about standard tyres in trials—I think they will have a big influence on engine performance and we shall go back to more tractable engines of better all-round performance for the ordinary rider, and that is what is wanted.'...he was entered officially in the Reliance Trial by the Scott Company, and his outstanding recollection is of tying a bunch of crackers to George Rowley's machine (it was about November 5th) before leaving their hotel at Chester. That was in the days of acetylene lighting, so it was quite easy to let George sit on the model and say, 'I'll light your tail lamp.' Which he did and the timing was so perfect that the crackers started to explode just as George drove off, to his great consternation and to the disturbance of much of Chester's traffic."



"Allan Jefferies is up to every trials dodge. In the International Six Days Trial he kept his time card in his cap, and here he is seen having the card stamped. (Right) There is no branch of the sport which Allan has not tackled. This picture shows him in action at Donington, where he is a regular competitor."

OBSCURE FOOTNOTE DEPT: a popular *Daily Mirror* cartoon strip of the time starred a diminutive trio called Pip, Squeak and Wilfred. Older readers will know that 'pipsqueak' is a derogatory term for a small person, and for many years 98cc autocycles with their auxiliary pedalling gear and extreme fuel economy were known as 'Wilfreds'.

THE BRITISH INDUSTRY OFFERED more than 320 models; 10 manufacturers included rear suspension. Prop stands were becoming the rule, many with 'heels' to stop them digging into soft ground (a useful feature missing on many later bikes; riders are still using flattened beercans to stay upright). One-lungers made up 90.6% of the total (up from 80.6% five years earlier) while 7.2% were twins (down from 17.8%). Exactly 45,239 bikes were registered for the first time, boosting the total British parc to 462,375.

CALTHORPE HAD BECOME one of the ranges sold exclusively by South London dealers Pride & Clarke, at which point a chasnge of colour transformed the well established Ivory Calthorpe into the Red Calthorpe, though green was available as an option. The revised colour and name didn't please the buying public and Calthorpe went into liquidation. It was bought by Bruce Douglas (yes, that Douglas) and a new range was announced: 245, 348 and 497cc ohv singles with Matchless engines. But the move to wartime production led to the new firm losing its factory at Bristol Airport and that was the end of the line for Calthorpe.

"SO BSAs HAVE WON the Maudes Trophy for their remarkable certified test held last February. I am not surprised. They deserve it. This trophy, you may recall, is awarded to whoever makes the most meritorious performance in the year's certified tests. In the case of BSAs two standard machines, one a 500cc Empire Star and the other a 600cc side-valve sidecar outfit, were obtained by the ACU from agents just as if the machines were being bought by ordinary purchasers. They were then used for 20 consecutive ascents and descents of Bwlch-y-Groes, which is generally adjudged the most difficult hill tourists ever tackle, and then, after strenuous tests at Brooklands, there were a further 20 consecutive ascents and descents. Among the tests were six hours' high-speed running at Brooklands, tests of maximum speed, of acceleration and of braking. As a means of demonstrating the flexibility of the machines both were driven through London during traffic hours from north to south and east to west using only top gear and the clutch. What was remarkable was that in spite of the gruelling the solo machine averaged 58.59mph for six whole hours and the sidecar outfit 46.12mph. The maximum speed of the two machines was 78.94 and 56.25mph respectively."—Nitor.



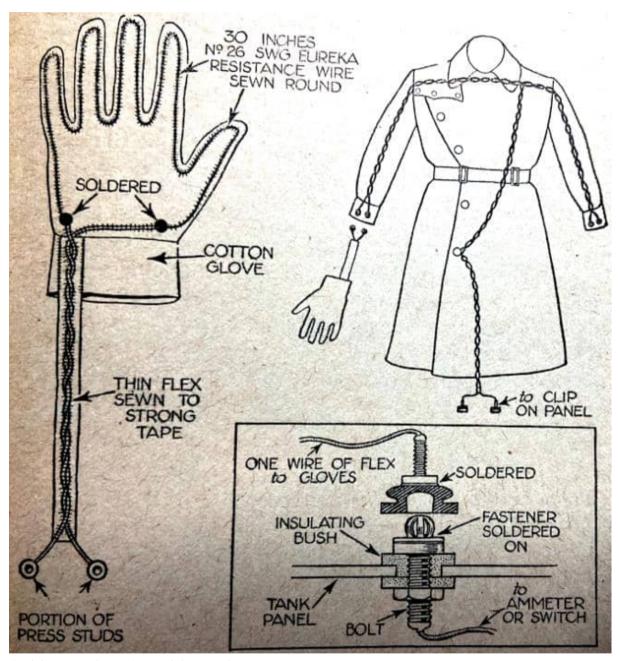
"A glimpse of Bwlch-y-Goes and with it the two machines that won for BSAs the Maudes Trophy for the most meritorious certified test of the past 12 months."

"IN THE ANNOUNCEMENT of the new Territorial Motor Cyclist Battalions a fortnight ago it was stated that readers should apply for details at their local Territorial Headquarters. London readers will be interested to know that the London battalion is the Queen Victoria Rifles, which, the Commanding Officer states, has vacancies for approximately 100 motor cyclists, and is, incidentally, the second oldest volunteer regiment in the country. WD motor cycles will be provided and the work includes wireless control and use of the Bren gun. Application should be made either to the Adjutant at 56, Davies Street, Berkeley Square (close to Bond Street station) or foe those in the Hampstead area to the Commander of B Company, the Drill Hall, Lymington Road, Hampstead (a turning off the Finchley Road)."

## HINTS AND TIPS

"AS IT WAS NECESSARY to do a journey of nearly 300 miles every week-end, it was felt (!) that an attempt should be made to devise some arrangement for keeping the hands warm, yet at the same time the 'lines' of the Manxman must not be spoilt. The first attempt was suggested by observing the method adopted on many modern cars, namely, using the exhaust pipe to heat a stream of air collected by a funnel. On a motor cycle, however, the conditions are very different, and although it was found possible to obtain some hot air from a 6in. funnel and three turns of ½in pipe round the exhaust pipe, very little air was delivered until a speed of about 60mph was reached. And further experiments showed that at least a 10in funnel was needed. So, because the Manxman was rather offended at hearing people allude to its 'ship's ventilators" the experiment was dropped and another method of approach tried. Why not use current from the battery? But would the dynamo be able to 'keep pace' with it? On my machine there is only just sufficient juice for the lights, and the greater part, and certainly the colder part, of the journey is made during darkness. After winding 'Eureka' and nickel-chrome resistance wire round the fingers of a thin cotton glove it was found that while a small current would keep the hands warm, once they were warm, nearly 4 amps. were needed to 'heat-up' frozen hands in a reasonable time. The idea of a constant discharge was discarded, as often, even at night, a discharge of up to 4 amps can be tolerated for short periods, viz, when passing through towns with only the parking bulb on. Working on these lines, I stitched 30in of 26swg Eureka resistance wire round the backs of the fingers of a pair of cheap cotton 'cleaning' gloves. The ends of the wire were then soldered to a length of thin twin-flex—the kind used for hanging bell-pushes. This wire, although of appreciable resistance, was used for the sake of neatness, and allowance made for the resultant voltage drop in calculating the length of the resistance wire. Next came the method of fixing. Although the wire was thin enough to break in the event of a spill, it was often forgotten when getting off. After trying various plugs and clips, the 'perfect' device was suggested quite unwittingly by the fair passenger—press-fasteners! These allowed the wire to be ripped off in a hurry, and also, if forgotten, would pull off, no matter what the angle of the wire. It was found that a trailing wire from each hand to the tank panel was very liable to get entangled when one gave hand-signals, etc, so the final arrangement adopted was as follows: Two of the male portions of the pressfasteners were sewn on the sleeve of the coat about an inch apart, and to these another length of flex was soldered and taken up the sleeve between the ordinary lining and the oilskin lining of the coat. After joining the wire from the other sleeve (the two gloves are

wired in parallel), the wire was led down the front of the coat and finally emerged at the bottom button-hole, where it was firmly sewn. About 18 inches of wire were left loose, and the ends soldered to a 6BA bolt, which in turn was soldered to the female part of another pair of fasteners.



"Wiring details of 'ELTH's' electrically heated gloves. The small sketch shows the compress-stud connector on the tank panel."

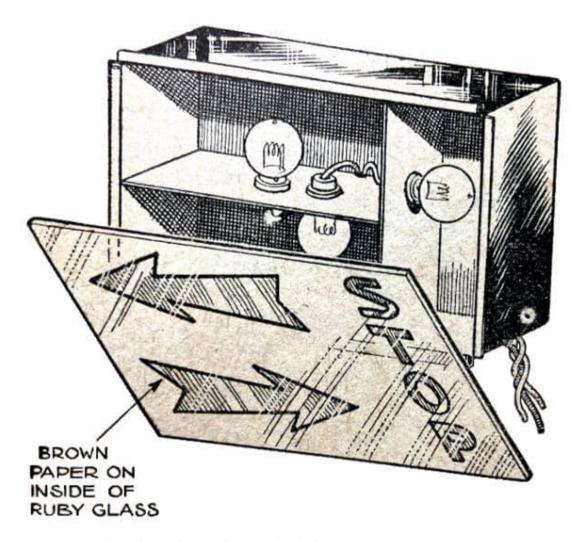
The reason for the bolt is to increase the leverage on the fastener when the wire is pulled from au acute angle. Then the male portions of the fasteners were fixed on the tank panel by soldering them to the head of a suitable bolt and screwing the bolt through insulated bushes to the panel. One of these bolts was then connected to the ammeter, and the other, via a switch on the bars, to 'earth'. It only remained to terminate the flex

sewn to the glove with a pair of female fasteners soldered on, and then sewn to a strip of strong tape, and the job was finished. As to results, the gloves take just over 3 amps, and the initial period of heating varies from one to three minutes, depending on the temperature of the hands and air. On the average, with the temperature around freezing point, and maintaining a good speed, it is only necessary to switch on for about a minute every quarter of an hour. Naturally, a pair of loose-fitting gauntlets are worn over the top of the 'electrics'. The battery does not appear to be adversely affected, for in daytime the charging rate almost balances the current taken, and it is of short duration, while at night, as the gloves are used only when the small bulb is on, and the full charge is being supplied to the battery, there is a slight surplus. There is only one disadvantage—the passenger has also insisted on a pair. But, as there is hardly enough current for two pairs. she will have to have them, and—well, 1 shall have to wear my old thick fur gauntlets!

## ELTH."

"THE ATTACHED SKETCH shows details of a 'trafficator', made by my father. The body, which measures 6x4x2in, is made of sheet brass with copper channelling to take the ruby glass. The arrows and lettering were stencilled in thick, dark-brown paper and then stuck on the inside of the glass; they do not show until their respective lights are switched on. The arrows are illuminated via a two-way switch on the handlebar, and the 'stop' by means of a single-pole switch connected to the brake pedal.

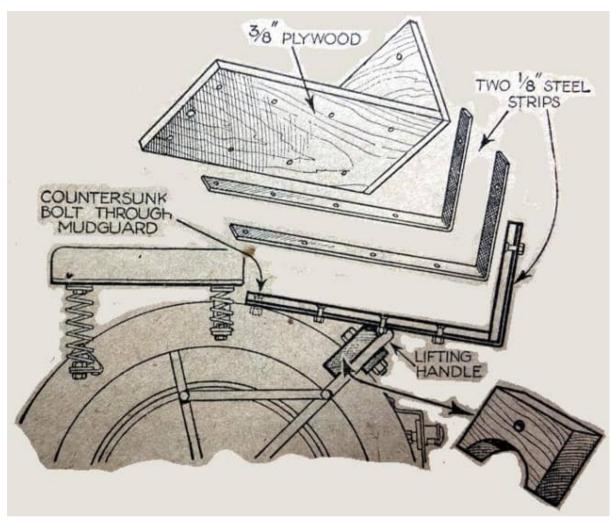
WGF."



"The home-made 'trafficator' described by 'WGF'. It has three compartments, each of which is provided with a bulb

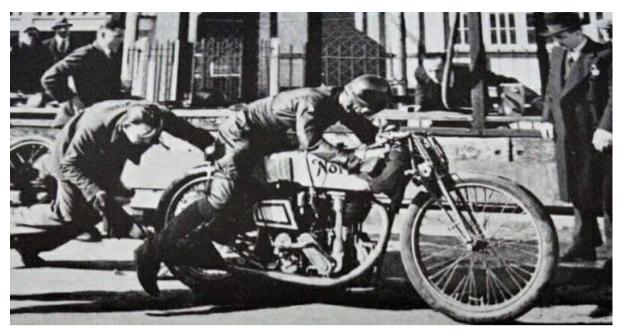
"THE SKETCH SHOWS a luggage carrier which I made for my machine and which carries two small suitcases without giving any trouble. I can recommend the idea to motor cyclists going on tour, and assure them that the balance and steering are not noticeably affected by the weight.

AH."



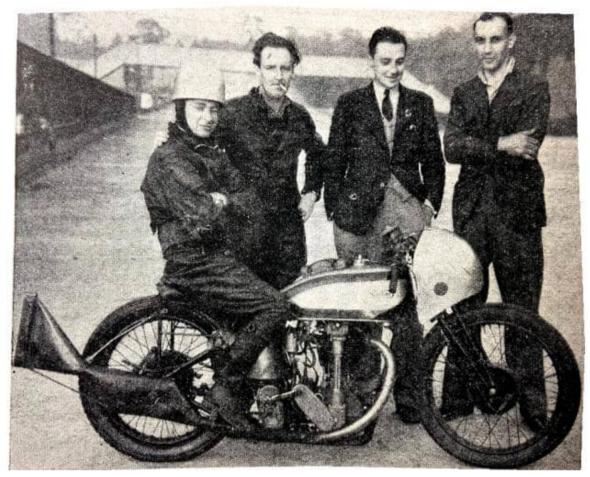
"An effective and easily constructed carrier for a machine fitted with a pillion seat."

"AT BROOKLANDS LAST SATURDAY, NB Pope and HAR Earle, riding Beart's 348cc Norton, succeeded in breaking the world's records in Class B for 3 hours and 500 kilometres. An attempt on the records was first made on Friday, but had to be abandoned when the 6¾-gallon fuel tank split after l½ hours. On Saturday Beart tried again, but this time a 4½-gallon tank had to be used, bringing with it the obstacle of an additional refuelling stop. Three instead of two stops were now necessary. In bright but cold weather Earle got away soon after 12.30pm. The schedule was a lap time of 103sec, or 96.71mph, which Earle seemed to have difficulty in holding. Times of 104, 105 and later 106sec were not good enough to get the record with three pit stops. At 24 laps Earle came in for Pope to take over. Pope knew the position and answered with lap times of just under 103 secs, which were consistent often to ½sec. Round and round he circled, until when Earle again took over at 52 laps Mr AG, Reynolds, the official time-keeper, announced that they were almost back to schedule. Then came misfortune. In starting from the pits the plug had oiled slightly and an intermittent misfire slightly bought the lap times up to 107 and even 110sec, or 90.5mph.



Beart pushes Beart away during the record breaking run.

What could be done? A stop to change a plug without refuelling was almost certain to put the record out of reach. Beart, hoping that the plug would clear itself, let Earle carry on. But the misfire persisted and the plug had to be changed at the refuelling stop. Pope was now in the saddle again. Could he do it? He tried magnificently. Lap after lap was reeled off with the Norton going like clockwork. Grass-cutting, using every trick bred of his Brooklands experience and, as he said afterwards, cursing the numerous cars on the track, he hurtled round. in 102sec, and then in 101sec, about 98mph. This was beautiful riding, and at 101 laps Mr Reynolds said, 'I see light'— the 3-hour record was in the bag. Immediately Beart decided to go for the 500km record and possibly the 4 hours. Pope was signalled in after 3 hours to return a speed of 93.30mph. Earle went off again for about another 20 minutes, when with the 500km record shattered by nearly 5mph he was called in owing to the poor light. Details of the new records are as follows: 3 hours, 93.30mph (previous record, 92.88mph); 500km, 92.99mph (88.19mph). The previous record for 3 hours was held by A Denly (AJS), who made it at Montlhéry on July 5th, 1929. The 500km record previously stood to the credit of Milhoux and Tacheny (FN), riding at Montlhéry on October 26th, 1931.



"The successful party immediately after the three-hour and 500km records had been broken. Seated on the 348cc Norton is HAR Earle; standing are NB Pope, RC Rowland and FL Beart."

"AN INTERESTING ACU-OBSERVED test of a 248cc Red Panther and a 598cc Model 100 Redwing Panther has been carried out at Brooklands. The two machines were submitted to an ACU certified test of fuel consumption. After emptying the tanks and float chambers the ACU observer poured a measured gallon of ethylised fuel into the tank of each machine and sealed the tanks. Then the machines set off, EF Chidley riding the Redwing model, and H Marians the Red Panther. The test continued for hour after hour under fine weather conditions, but with a wind that at times was decidedly strong. The 598cc model cruised around the track at roughly 37mph, and the 250 at approximately 28mph. When finally the tanks ran dry the Red-wing 100 had covered a distance of 123.8 miles measured on the 50ft line, and the 248cc Red Panther 130.1 miles—in other words, the respective fuel consumptions were 123.8 miles to the gallon and 130.1mpg, two very creditable figures. The average speeds were respectively 36.77 and 27.78 mph."

"I OWN A 1935 248cc PANTHER, to which is fitted a light sidecar. I bought this machine 18 months ago and it is used every day to take me to work and at week-ends for pleasure. It carries myself on the saddle, my wife in the sidecar, and a son aged 14 on

the pillion. It will do 50-55mph and I obtain 80-100mpg. The total weight carried is about 33-stone, including food, tools, and riding kit, and the little machine pulls it with ease, and in my opinion there is nothing to beat the 248cc sidecar outfit for economy—provided it is handled correctly. On my machine careful use of the ignition control in conjunction with the gears works wonders.

Thos Cooke, Wallsend."

AN UNDERGROUND CARPARK in Birmingham was built to double as an air-raid shelter for 3,500 people... just in case.

EDWARD TURNER'S VERTICAL TWIN Speed Twin was tweaked into the Tiger 100 and, like George Brough's SS100, the name reflected the model's potential speed. It was soon a formidable clubman's racer helped by the use of a reverse-cone magaphone. The reverse cone and baffles were detachable, leaving the Tiger 100 roaring through a racing mega—and leading to the popularity of reverse-cone megas of later years.

"DESIGNER PAGE JOINS TRIUMPHS—Mr V Page, the designer, whose paper on 'Motor Cycle Engine Development' brought many famous designers together in Coventry last February, has joined Triumphs as chief engineer."

THE JERRIES DIDN'T HAVE a monopoly on superchargers. Ivan Wicksteed rode a blown Triumph Speed Twin round Brooklands at 118.02mph to set a 500cc lap record. Freddie Clarke set a 750cc record of 118.60mph on a Speed Twin bored out to 501mph; he also set an all-time 350cc lap record of 105.97mph on a Tiger 80. Wickstead's Triumph was tuned by Marius Winslow; the two had met at boarding school and made an effective team. Among bikes tuned by Winslow and ridden by Wickstead was a Rudge-Jap which had earned a Brooklands Gold Star. In his obituary of Wicksteed Jim Reynolds reported: "The two young enthusiasts, still in their twenties, had approached Triumph's managing director in a supreme example of naive optimism, explaining that his newly announced twin-cylinder road machine might be modified and supercharged so effectively that it would break the Brooklands record. Edward Turner, never a man with time for publicity through racing, listened to what they had to say and simply replied, 'A very logical conclusion. Good afternoon, gentlemen!', before turning on his heel and walking away. Spurred on by this rejection, Wicksteed and Winslow bought their own Triumph, prepared it for the track attempt and in October 1938 set the new lap record. The response from Turner was immediate, with full-page advertisements congratulating Wicksteed on his achievement, then inviting the two to the Coventry factory and asking what support they needed for future efforts. Before that promise could be realised, the Second World War intervened, the steeply banked Brooklands track was partly dismantled to make room for a runway, and Wicksteed's record was forever beyond reach."



Brooklands didn't re-open after the war so Wickstead's record will never be beaten.

THE DRIVERS OF A CAR and a lorry were unhurt when they collided. But a woman who happened to see the accident claimed the fright affected her health and sued them. The Manchester Assizes ordered the drivers to pay her £2,500 (at a time when a new ohv 500 could be picked up for £50, her payout equates to more than £300,000). Ixion, distinctly unimpressed, wondered if football clubs might be held liable for the stress caused by narrow misses and the like.

EUROPEAN-STYLE ROADRACING migrated to the USA with the innauguration of the Laconia meeting in New Hampshire.

DURING AUGUST alone 688,000 fans paid to watch speedway.

BMW WAS PROBABLY the best known German marque internationally, but in terms of sales it was behind DKW, NSU and Zundapp. From January-November they produced 42,000, 28,375 and 17,341 motorcycles respectively.

THE INTERNATIONAL Motorcycle Tour Club now had a membership of 364.

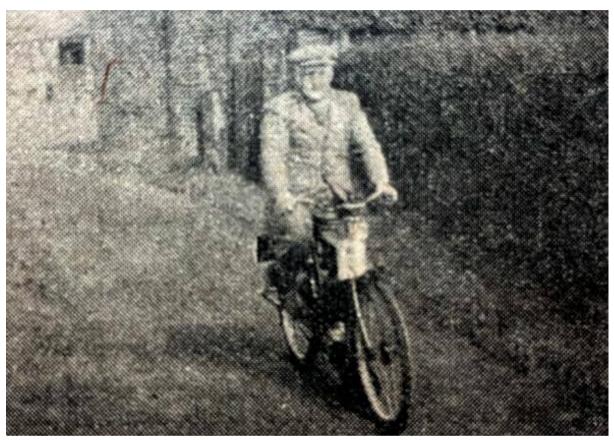
MORE THAN 5,500 MOTORISTS and motorcyclists were fined for number plate offences, mostly dirty number plates.

JAPAN PASSED THE NATIONAL Mobilisation Law, which empowered it to mobilise 100% of the country's population and resources for the war effort–Japan had been carving its

way into China since 1936. Among enterprises set up during Japanese mobilisation was Showa, which was initially tasked with developing aircraft suspension units.

"THE ENCLOSED PHOTOGRAPH is of my father who, at the age of 72, has just taken up motor cycling after having been a cyclist for a great number of years. His new mount is an Excelsior Autobyk.

WJ BROMILOW, Wigan."



"Starting at 72: Mr Bromilow Senior, on his first machine, an Excelsior Auto-byk."

"WHEN MR AM RUFF WRITES that the word 'velocycle' is 'a hybrid of the deepest dye', he slightly exaggerates. The first part is undoubtedly from the Latin, but so is the tail. Cyclus is a Latin word borrowed from the Greek Kuklos, nevertheless it is a good. Latin word. I ascertained this before submitting the suggestion, for I agree that two languages should not be blended in one word, though it has been done in the common English word 'bicycle'. The Greek prefix is 'di'—'bi' is Latin. 'Velocycle' does not sound foreign, and it is not foreign. Latin is part of our English language. Anglo-Saxon is one only of many other languages that have been fused into our English tongue. Though away from the point, I would point out that 'brake' (Old French), 'hub' (origin unascertained, its first traced use was in 1649), 'tire' (an abbreviation of 'attire', derived from Old French), and 'frame' (Old Norse) are not 'good old Anglo-Saxon words', while the 'foreign' words, 'engine' (traced back to 1330), 'car' (to 1382), 'valve' (to 1387), and 'motor' (to 1586) have been long enough in use to have ceased to be foreign. If the motorised cycle is to

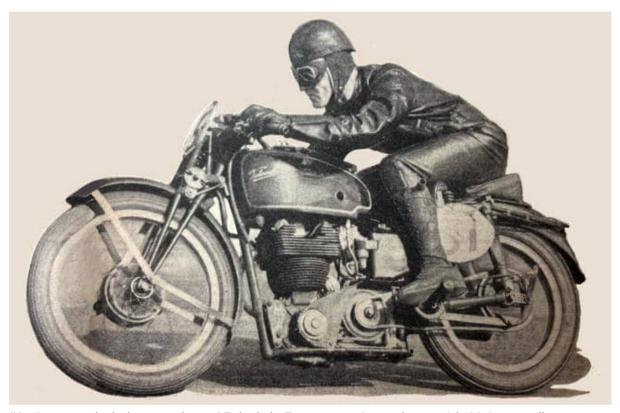
be popular, attention must be given to many things (see the current issue of The Automobile Engineer) and one small thing is a name for the type. In my opinion, as it is designed to appeal to the public who cycle because they need cheap transport and not because it is their hobby, emphasis must be laid on the fact that it is essentially a bicycle, and the name 'velomotor' does not stress this, while the name 'velocycle' does. Again, 'motor' means colloquially a vehicle with more than three wheels, while 'cycle', to most persons, means something with two wheels. When I wrote that 'velomoteur' looks foreign, so that it would be preferable not to adopt it, I had in mind the fate that has befallen the name of the variable cycle gear known as the 'derailleur'. To hear this anglicised is painful, yet speak of a 'de-ray-ee-eh' gear and you are either not comprehended, or marked down as trying to be superior. 'Velomoteur' is, and looks, alien and would not be gracious to our tongue.

## HJ KENDRICK, Coventry."

"A YEAR AGO ANY PROPHECY to the effect that the British Army in a matter of months would be competing in motor cycle trials and have its own motor cycle championships would have been treated as fantastic. The fact is that in the past few months the Army has realised anew the value of motor cycles and taken to trials with an enthusiasm which has to be seen to be believed. The authorities started from scratch; few connected with the Army had any experience of trials, but nearly all believed, like certain Continental nations, that trials and scrambles formed magnificent training, imbuing those who competed with a far higher degree of skill than was possible in any other way and, what is also important, developing courage and initiative. As all must know, a start was made with local trials. Almost immediately afterwards the War Office entered three teams in the International Six Days Trial. No one expected these teams to win or anything of that sort; experience was needed before this could happen. However, those who competed and those who accompanied the trial gained knowledge that is proving invaluable. There is no doubt about it; in the few months that have passed since the. Army took to trials riding the skill of Army riders has increased remarkably."

"I SMILED BROADLY when I read 'Repairer's' suggestion to use a common safety-pin as a substitute for a split pin in emergencies. I think one of my early loves invented this simple tip about the year 1901. I am ashamed to add that I cannot even remember her name. Anyhow, I had taken her out in a trailer, and during an adjustment dropped a split-pin in long grass. As I fussed and cursed she suddenly felt under her blouse, produced a small plated safety-pin, and asked meekly 'Won't this do?' Since then I have often used both safety-pins and bent pins for the same purpose."—Ixion. [About 50 years ago I was riding through South London with a chum on a G9 Matchless when it was immobilised by a snapped drive chain. A hairgrip supplied by a passing schoolgirl allowed him to limp as far as the nearest supply of splitlinks. Soon afterwards a safety pin was pressed into use to secure the rear brake clevis pin on my plunger 'Flash. Plus ça change, plus c'est la même chose, n'est ce pas?—Ed.]

EUROPEAN 350cc CHAMPION TED MELLORS was featured. "...There is, in his opinion, no chance for the rider who picks up a fastish machine and imagines that he has only to learn to ride it in order to succeed. It goes much deeper than that. Mere riding experience counts for little; you must remember every fault and be able to correct it, you must keep an eye on the other fellow, but you must not allow him to lead you astray. You can learn much from the close observation of a star rider, but in trying to emulate him you must remember that you are not riding an identical machine, and in any case you may not have a similar brain. Again, should you tuck in behind one of the fast men, do not be too sure that he is going to be willing to act as your guide throughout the race. Use him as much as you can, but be suspicious of any variation in his tactics, and as soon as you notice a change disregard him immediately and ride your own race."



"A characteristic impression of Britain's European champion on his Velocette."

"SEVERAL INTERESTING FACTS emerge from our *Buyers' Guide*...The first is that no fewer than 10 British manufacturers now offer rear wheel springing either as standard or as an optional extra. Another fact that is not always realised is the extraordinarily wide choice that is offered the British motor cyclist. No country in the world produces nearly so many models. Analysis of the Buyers' Guide shows that the total number of different machines is over 320! Of these models 27.5% are between 150 and 250cc, 25.3% are 500s and 20.6% 350s. Last year the percentages were respectively 25.8, 32.5 and 19.8. In other words, there is a marked tendency for manufacturers to concentrate upon engines of smaller size, no doubt the result in part of the ever-increasing power extracted from engines. Side-valve and two-stroke engines show an increase at the

expense of overhead-valve types, and there is a notable increase in two-strokes of under 150cc. A rather surprising feature is the growth in the number of three-speed gear boxes. No doubt, however, this can be accounted for by the increase in small two-strokes."

Here's a selection of the bikes that featured in the Buyer's Guide...



L-R: 490cc ohv Flying Fox AJW; 350cc ohv Q35 COVENTRY EAGLE; 600cc flat-twin DOUGLAS."



L-R: "600cc ohv R66 BMW; 500cc two-stroke Twin DKW; AER 350cc Twin two-stroke."



L-R: 350cc J12 Manxman EXCELSIOR; 1,300cc sc HARLEY-DAVIDSON twin; HEC [80cc two-stroke] Power-Cycle."



L-R: "249cc K9 two-stroke JAMES; 498cc LEVIS D Special; 250cc spring-frame MONTGOMERY."



L-R: "346cc Grand Prix NEW IMPERIAL; 98cc RAYNAL [Villiers] Auto; 596cc Flying Squirrel SCOTT; 250cc super-sports WOLF."



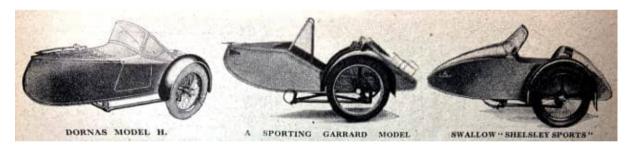
L-R: "346cc Grand Prix NEW IMPERIAL; 98cc RAYNAL [Villiers] Auto; 596cc Flying Squirrel SCOTT; 250cc super-sports WOLF."



L-R: "249cc DW Club water-cooled SOS. TRIUMPH Tiger 100 Vertical-twin; 125cc two-stroke GROSESPUR."



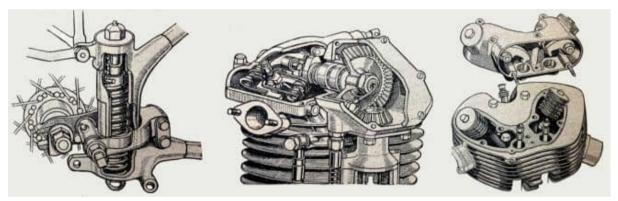
L-R: "800cc sv ZÜNDAPP four; The Lightweight CYC-AUTO [98cc, marketed by Scott]; 1,100cc sc ZENITH twin.



"WHAT ARE THE CHANGES for 1939? For an hour and more I have been poring over the many pages of 'Advance Details' we have published. The amount of change has come rather as a surprise, a very pleasant one. Not only that, but it seems fairly easy to see the development of new trends in design. Of course, the most spectacular change is in the adoption of rear-wheel springing. If you count up the number of British manufacturers in the Buyers' Guide you will find, I believe, a total of 38. Eliminate those who produce only motorised bicycles, miniatures or three-wheelers and you have 32. Of this 32 no fewer than ten offer rear-wheel springing, while two others used spring frames in the TT, but do not as yet market them. These figures are rather surprising. Undoubtedly they show the way design is tending. When we come to engines the change is less marked. There is no wholesale swing towards the multi. There is a second 500cc vertical twin (replacing a single, incidentally), a 600cc four ranging itself alongside a well-proved 1,000cc four, and a vertical-twin two-stroke now in production. This completes the list except for one new multi that will probably be described next

week; it is in singles that there are so many new designs. Here there are entirely new engines, both four-stroke and two-stroke, and more than a dozen which are very largely new. Engines are taking on a fresh appearance as a result of the wholesale adoption of the principle of enclosing all the moving parts and eliminating excrescences. Push-rods now run in tunnels in the cylinder and cylinder head, and the whole of the overhead-valve gear is enclosed and positively lubricated, almost as a matter of course. Another principle that is gaining fresh advocates is chain drive for the timing gear, a practice adopted in the automobile world. This has great advantages in the case of high-camshaft designs and helps to eliminate mechanical noise. There is also an increase in the number of designs employing outrigger bearings in timing gears, again with the object of ensuring silence. The timing side in numerous instances has been completely redesigned. More spectacular, if less important from the user's point of view, is the marked change is colour schemes. In some quarters there is even a tendency to go gay!"—Nitor.

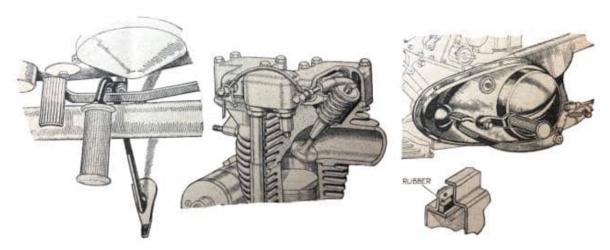
...and here are some of the line drawings of those innovations.



L-R: "No fewer than 10 manufacturers offer rear-wheel springing for 1939. Valve springs of the hairpin type are now usually enclosed. Positive lubrication of all moving parts is almost universal."

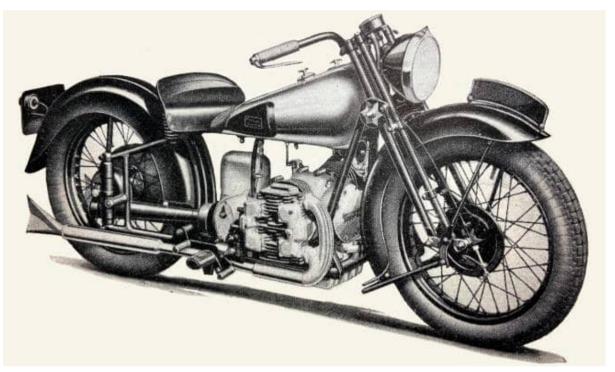


L-R: "Chain-driven timing gears are growing in favour. One method of reducing timinggear noise is the adoption of an outrigger plate. Push-rods are now often accommodated within tunnels in the cylinder and cylinder head."



L-R: Prop-stands, often with heels to prevent them digging in, are becoming the rule. Coil-type valve springs are invariably enclosed. Rubber seals are being used in many directions."

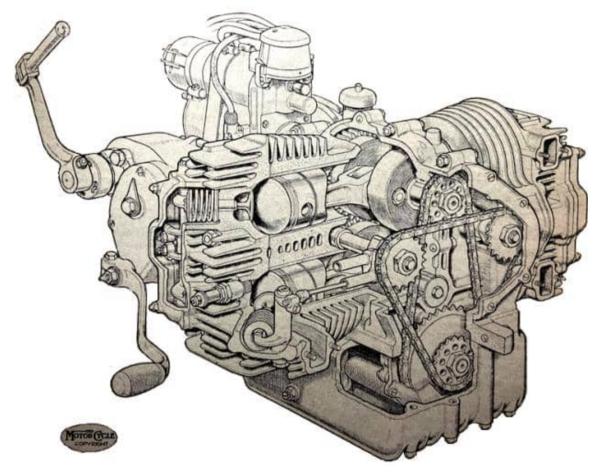
"IF IN THE MOTOR CYCLE world there is a real desire to break away from convention, a very definite lead is given by a design which will appear at Earls Court next Monday. So full of interest, so cleverly constructed and so beautifully carried out is this new effort that all must admire the pluck, ingenuity and imagination that have brought it into being. The maker is George Brough and, with his unbounded enthusiasm, he has produced a machine which outclasses any previous attempts that even he has made. This is no freak model, but a very serious endeavour, and from stem to stern it is a Brough Superior product. There is nothing, apart from the obvious accessories, that is not made in George Brough's own factories, and so far advanced are his plans that production is now definitely taking place. George Brough calls this new machine The Dream—the realisation of a cherished ambition to produce his ideal motor cycle. It is a four-cylinder mount of unique pattern in which the cylinders are mounted across the frame. In effect, the engine consists of two flat-twins set one on top of the other, but with a common crankcase, which is formed in unit with a three- or four-speed gear box...The crankcase is a massive aluminium casting split down the middle; this forms the cylinder block and is fitted with centrifugal cast-iron cylinder liners that are pressed and shrunk in. An unusually short stroke is employed, which gives remarkable compactness to the unit. The cylinder dimensions are 71mm bore and 63mm stroke, a total capacity of 996cc, yet the overall width of the unit is only just over 20in. Each pair of cylinder heads is formed from a single casting; hemispherical combustion chambers are used...the 14 mm. sparking plugs are carried almost in the middle of the combustion heads. The first engines have been fitted with cast-iron cylinder heads, but aluminium ones have also been made...There are two gear boxes available, one a normal three-



"Called 'The Dream', the new 996cc Brough Superior has been designed to incorporate all the features which idealists have been demanding. It has four cylinders, unit construction, shaft drive and rear-wheel springing. The only exposed moving parts are the two wheels."

speed and the other a not-so-normal four-speed job. The three-speed box has a kickstarter, but there is a hand-starting lever for the four-speed design. This hand-starter is arranged in such a way that in the event of a back-fire the clutch is thrown instantly out of engagement. Details of the internal mechanism of the four-speed box are not yet available for publication owing to the question of patents. The propeller-shaft is enclosed and terminates in bearings in a case which encloses the worm and phosphorbronze worm wheel. A double-thrust bearing takes any side load and there are super oil seals to prevent grease entering the 9in diameter rear brake. The rear-wheel springing is on the well-known Brough Superior principle of sliding fork-ends moving between two springs, an upper main spring and a lower rebound spring...A redesigned Castle fork is fitted. It is much neater than previous patterns and is wider, eliminating the necessity to trap the front mudguard...Incorporated with the fork is an adjustable ball mounting for the head lamp. There is an ingenious prop-cum-lifting stand which, by slight pressure of the foot, will hold the machine, or which may be used as an ordinary stand. In either case, both feet of the stand are lowered, so road camber does not interfere with its use as a prop-stand. A handsome 4½-gallon petrol tank is fitted; this has a bulbous nose which is nicely swept op to the head which it partially surrounds. On the under side of the tank is an unusually wide channel that accommodates the tool box. The saddle is 18in wide and has a 2in. high backrest. A special triangulated sidecar chassis has been designed. This has only two points of connection, which are 70-ton tensile steel bars

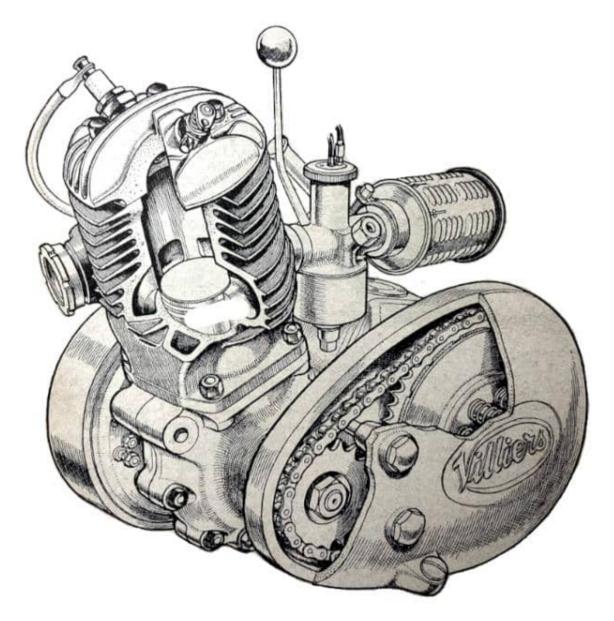
and run straight through two of the tubular cross-members of the frame of the machine. The connections are locked on tapers and the wheel is mounted on the end of a torsion bar located within the rear transverse chassis member. The price of the Brough Superior, solo, is £185."



"Detail construction of the new four-cylinder engine. The firing order is I,3,2,4 where No1 cylinder is the upper of the two right-hand cylinders shown in the drawing above, No 2 is the lower one and Nos 3 and 4 are respectively the lower and upper ones on the left. The gear-type oil pump is mounted behind the large chain sprocket, which has a cover to prevent oil-churning. To the right of the Lucas Magdyno is a breather. The adjuster protruding from the ribbed sump is the oil-pressure relief valve."

"SINCE ITS INTRODUCTION, the unit-constructed 125cc Villiers engine has enjoyed an increasing popularity. Its performance, liveliness, general reliability and compactness are features that have made a distinct appeal, and it remains a firm favourite. In view of this, it is interesting to find that the Villiers Engineering Company has produced another engine on similar lines. This newcomer, which is of 197cc capacity, has a bore and stroke of 59x72mm and employs a flat-topped piston. It is an exceedingly sturdy job and possesses many features that represent a marked improvement over former types. Its cylinder is deeply finned and the finning is carried very low down on the barrel. A

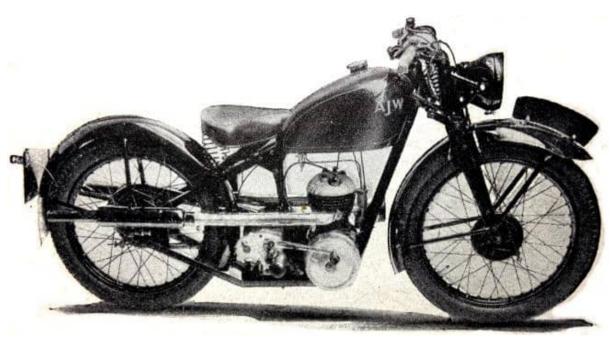
detachable aluminium cylinder head is fitted and this accommodates an 18mm sparking plug and a release valve."



"Detail construction of the ew 197cc Villiers engine-gear unit. Note the arrangement of the ports and the cylinder finning."

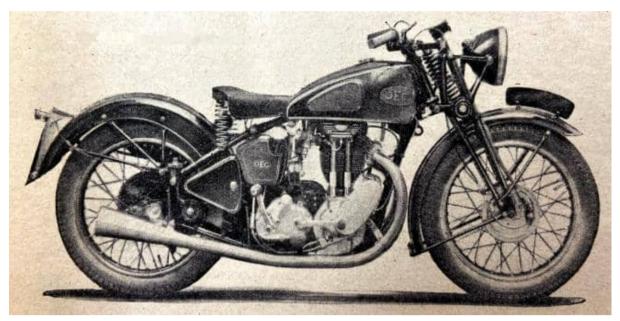
"IN ADDITION TO the popular ohv Flying Fox model, the AJW range for 1939 includes two two-strokes of particular interest. These models, the Lynx and the Lynx de luxe, both employ a 250cc Villiers engine of the deflectorless-piston type. An unusual feature of the design is a bolted-up duplex cradle frame, constructed of L-section nickel steel throughout, with the exception of the twin seat stays, which are of tubular construction. In this frame accessibility has been very carefully studied; both the engine and gear box can, it is claimed, be removed without difficulty in a few minutes. Another point is that there are no engine plates, the crankcase being bolted directly to the frame members. The engine is mounted vertically, and twin high-level exhaust pipes are carried in a

straight line, one on each side of the machine, to the rear wheel, where they terminate in tubular silencers."

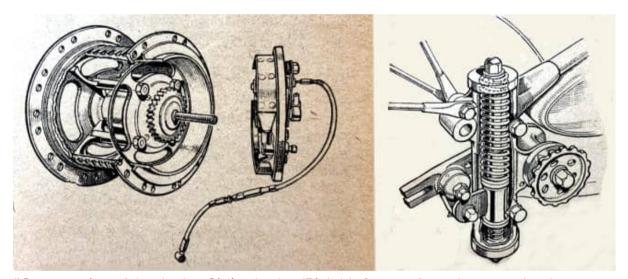


"The new 250Cc two-stroke Lynx model."

"CONTINUING ITS PROGRESSIVE policy, the OEC concern introduces Girling brakes as standard equipment for the three 1939 models. Apart from this feature the rear springing has been modified so that there is now a 4in. range of movement, and the tank has been redesigned. Other improvements are a more symmetrical exhaust system, a streamlined rear number plate, and a vertical carburettor. The range consists of the 350cc ohv Cadet, the 500cc ohv Commander, and a new model, the Commodore, which has a very high performance 500cc ohv engine. This machine also has duplex brakes, which can be obtained as an extra on the other two models. Specially produced Matchless-AJS engines of the high-efficiency type are employed, and these are claimed to be notably quiet in operation. The Cadet model has fully enclosed valve gear. The Girling brakes have 7×11/4in shoes. Where the duplex system is fitted each wheel has two distinct brakes on a normal hub. However, the backs of the drums are cut away to leave four webs, corresponding with similar webs which support the cylindrical fin silicon-aluminium alloy outer hub, which has approximately the same diameter as the drums. Through each set of drums and cylinder webs is a long bolt parallel with the wheel spindle. The complete assembly looks extremely massive, although in actual fact it is only a few pounds heavier than a normal single drum rear hub. Apart from the greater power of the twin brakes, the light-alloy cylinder promotes rapid cooling. Operation of the brakes is by means of cables. With the duplex arrangement the rear brake pedal spindle passes through the middle of the frame lug and actuates two cables, each provided with an adjuster. The two front brakes have a cross-over compensator of simple design. With a capacity of 3½ gallons the new tank is very pleasing in appearance."

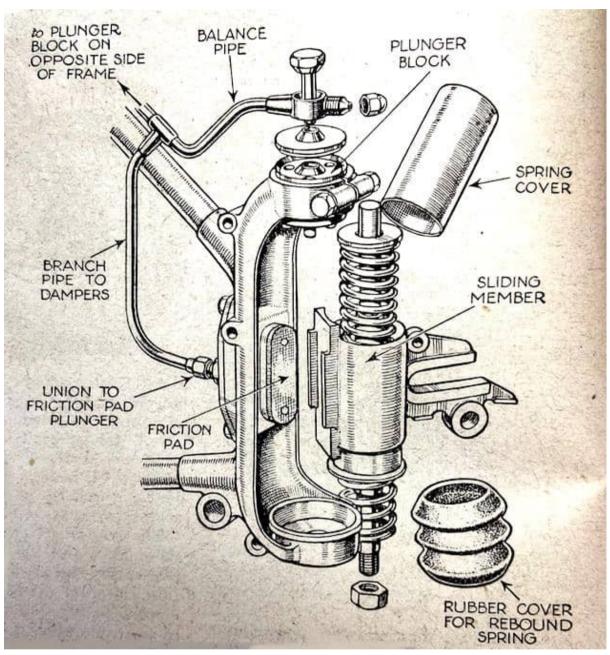


"The 350cc ohv Cadet."



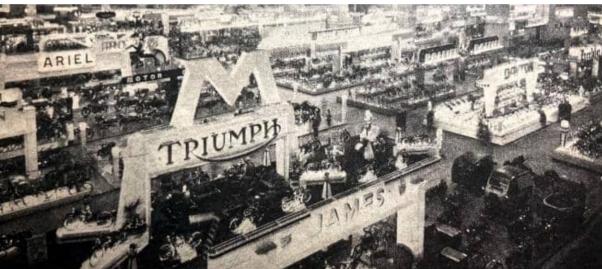
"Construction of the duplex Girling brake. (Right) In its new form the rear-wheel springing has a 4in range of movement."

"FOR SOME TIME PAST the Levis concern has been experimenting with a spring frame. In one form or another it has been on the road for the past two years; in its final form it is unusually interesting. In principle it is much the same as other well-known devices in which the wheel spindle is attached to two sliding members that are controlled by main and rebound springs. The Levis design, however, goes much deeper than this, for definite steps have been taken to eliminate the possibility of variations in tension between the two sets of springs, and possible differences in their lengths, tending to place a bending load upon the wheel spindle and the frame. In order that the wheel spindle shall at all times remain horizontal, the two sets of springs are balanced hydraulically. Further, each spring has a damper of the friction type in which a friction pad bears against a flat formed on the sliding member."



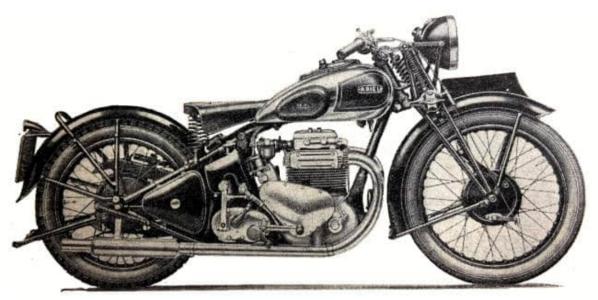
"Constructional features of the new and ingenious Levis spring frame. The design not only provides hydraulic balancing of the springs, but also compensation for different loads."





"Spectacle of the show: This impressive picture of the Earls Court Exhibition was taken early in the day just as the crowds were about to flock in."

"THE 600cc SQUARE FOUR is reintroduced for 1939, and it has an engine layout similar to its 1,000cc brother. The monobloc engine has two geared crankshafts, plain big-end bearings and totally enclosed push-rod-operated valves. A separate compartment adjacent to the crankcase houses the crankshaft gears. Always popular among sporting riders, the new 500 Red Hunter is now even more attractive. Modifications have been made to the timing gear and piston, and a new handlebar and front fork springs are fitted. This model has fully enclosed and positively lubricated valve gear with quickly detachable, screw-in caps that provide easy access to the rocker adjusters. Another feature, now well-known, is the remote clutch housed outside the primary chain case."



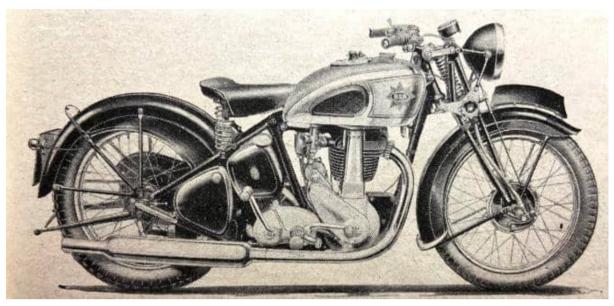
"The new 600cc Square Four is very similar to the well-proved 1,000cc model; in common with all the larger models it is available with a spring frame."



The Squariel took the spotlight on The Ariel stand, but the Red Hunter was a classic British sporting 500 single. Phwoarr!

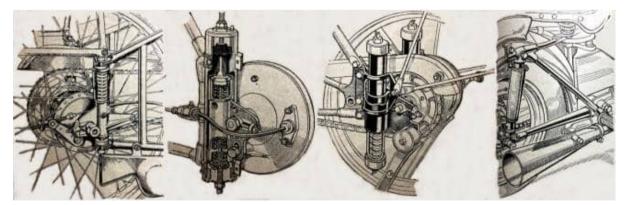
"WITH MODELS FROM 250cc to 1,000cc, and including sports, touring and 'competition' types, there is indeed something for everybody in the BSA range. The feature of this range is that there are side-valve examples in each of the sizes, which indicates the growing interest in this type of engine. The 500cc Gold Star is attracting considerable attention. The high-compression engine fitted to this model is a fine example of modern metallurgical progress, with its light-alloy iron-linered cylinder barrel and other 'advanced' features. A close-ratio gear box and a smaller tyre section on the front wheel are typical of the sports-type specification. Chromium and silver finish has now displaced the familiar BSA green. The 350cc Silver Star, which replaces the Empire Star, is a well-equipped model with a specification and performance that

will appeal to the enthusiastic rider of experience; moreover, the price is very attractive. The cylinder barrel is of the hardened type, designed to resist wear."



"A handsome sporting roadster, the new 500cc Silver Star."

"THE ONLY LIGHTWEIGHT machines with spring frames in the Show are to be seen on the Coventry Eagle stand. There are two models, one with a 98cc Villiers engine-gear unit, and the other with the 125cc Villiers unit. Apart from the engines, the machines have similar specifications, which include pressed-steel forks, 2¼-gallon petrol tank, legshields, improved silencing, and a larger saddle than before. The simple spring frame is of the plunger type with a single compression spring on each side of the wheel. Rebound is checked by rubber buffers. For pillion work stronger springs are fitted. In addition to these two spring-frame models there is a full range of the well-known Silent Superb two-stroke models with 98, 125, 148 and 250cc Villiers engines."



L-R: "A very simple form of springing is employed on the new 98 and 125cc Coventry Eagle lightweights; any rebound is taken by rubber buffers. Multiple springs are used in the Excelsior design which has been well proven in the TT and other races—note the cable operation of the Girling brake. Another spring frame to make its first public appearance at the Show—the new Scott rear springing. No actual springs are employed

in the Velocette frame; the movement of the wheel and the damping are controlled by a combined pneumatic and hydraulic system."

"THE HEC IS AN entirely new motorised bicycle. The engine-clutch unit is housed inside the frame tubes and attached at three points. It is a self-contained little unit with flywheel magneto, and the manufacturers state that it can be removed complete very quickly. This is an attractive point to a rider who must have a means of conveyance; he can take out the engine and cycle normally, as the riding Position and pedalling gear are quite suitable. Appealing features are a back-pedalling rear brake (hand-operated if desired) and a ratchet on the handlebar lever for holding the clutch permanently disengaged."



"The HEC is designed as a normal bicycle with an engine that will drive it at 20-25mph."



"One of the smartest and neatest motorised bicycles yet produced"—the 98cc Francis-Barnett Powerbike.

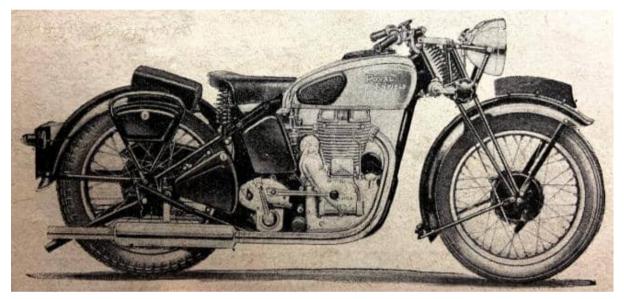
"ANOTHER CYCLE FIRM to enter the motor cycle field this year is Norman Cycles, and two types of machine are shown on their stand, One is a motorised bicycle with the 98cc Villiers unit in an open frame. A clutch with ratchet control is fitted, and internal expanding brakes are operated from inverted levers on the handlebar. (On one model the rear brake operation is of the back-pedalling type.) The other machine is a full motor cycle with a 125cc Villiers engine-gear unit in a simple loop frame."



"The new Norman motorised bicycle."

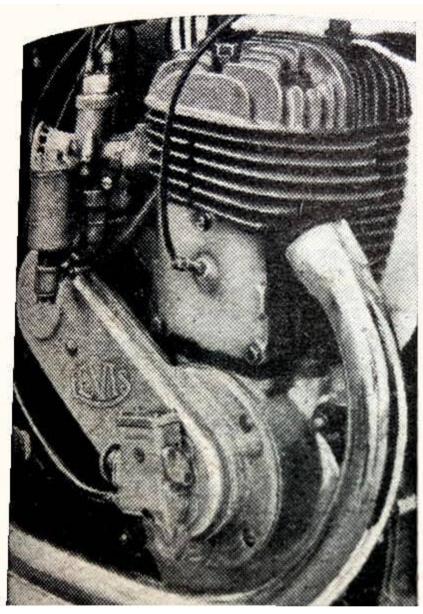
"AN ENTIRELY NEW ENGINE is fitted to the 350cc Bullet, for although the crankcase assembly is on familiar Royal Enfield lines, the cylinder and heal represent a complete

departure from previous models. The barrel is an alloy casting with a Vacrit liner, while the alloy head has inserted cast-iron valve seatings. The tappets have large, flat bases and are inclined so that the push-rods, which work in passages cast through the cylinder finning, operate in a straight line. The rocker gear and valve springs are completely enclosed with a separate cover for each valve. Several improvements have been made to the cycle parts, notably to the layout of the brake gear, the spring forks and the knock-out rear-wheel spindle, which permits an inner tube to be changed without removing the wheel from the frame. The tyre equipment is specially suited to the sporting rider, for not only is the front cover of smaller section than the rear one, but it has a ribbed tread. Variations of this model are a 500cc Bullet and 350 and 500cc 'competition' models.



"An entirely new model, the 350cc Bullet, has an aluminium cylinder and cylinder head."

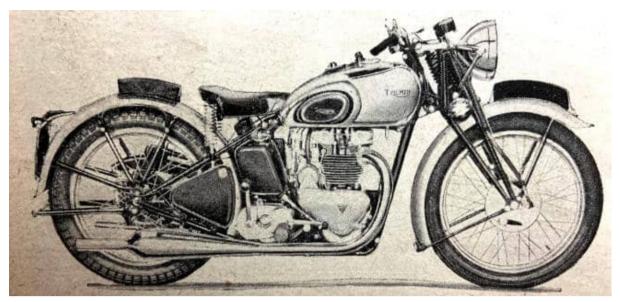
"FOR THE FIRST TIME in its history the Levis stand is housing a side-valve model in addition to the well-known over-head-valve, and two-stroke types. This side-valve machine is a straightforward model, sturdily built and without frills. The engine has an aluminium cylinder head and the valves are enclosed by. a detachable cover. The bigend is a double-row roller bearing and oil is fed to the engine by a Pilgrim pump."



"An innovation—a side-

valve Levis of 346cc."

"THE NEW TIGER 100 is a super-sports edition of the Speed Twin. It differs from the latter slightly, having so-called forged pistons, a slightly higher compression ratio and new-type silencers which, when dismantled, form exhaust megaphones. Fully equipped, this model costs £82 15s. An eloquent testimony to the manufacturers' faith in their twin-cylinder models is that nothing larger than a 350cc ohv super-sports single is now available. Well known to high-speed tourists and clubmen, the Tiger 80 has been considerably improved in both performance and appearance. The silver finish is retained, but is now also applied to the mudguards, which are relieved by a black strip down the middle. The engine has fully enclosed valve gear and is specially tuned."



"In place of the single-cylinder Tiger 90 there is now this handsome vertical twin supersports Tiger 100."

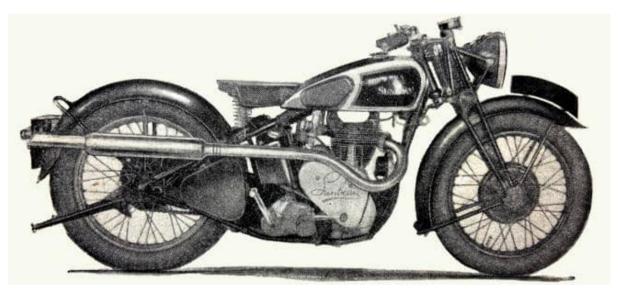




"A dream comes true: George Brough's latest design—a transverse 'four'—causes a Show furore. George can be seen talking on the left of the picture. (Right) Speed in steel: One of the cynosures at the Show, the ohc International Norton, attracts its usual knots of enthusiasts."

"IN KEEPING WITH the tradition associated with the Sunbeam name, the new range exhibited includes all that is best in accepted design. The engine is of the high-camshaft type and is available in sizes from 250 to 600cc. The camshaft is driven by a triangular chain, which passes over the magneto driving sprocket. The latter runs on its own bearings independently of the armature spindle, the connection between the two being by a rubber coupling. A Weller automatic chain-tensioner with a special damping device is applied to the chain. Side-by-side tappets are mounted in a detachable guide block, and short, enclosed push-rods actuate the overhead rockers; the hairpin valve springs and the whole of the overhead-valve gear are fully enclosed, and special care is taken to

prevent oil leaks. In general, the Sports range of models, of which this is a typical example, are planned for their job and have small-section front tyres, twin-damper forks with check springs and high-level exhaust systems."

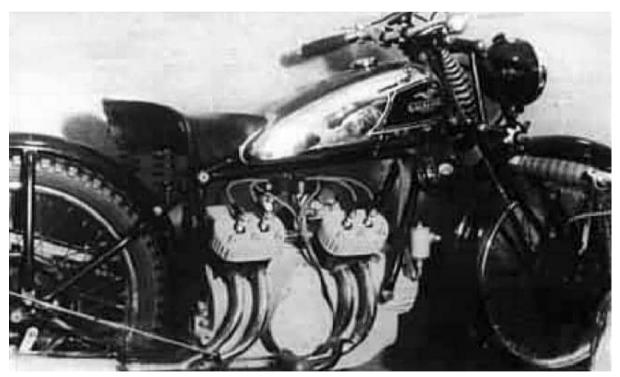


"An entirely fresh appearance is given to the ohv Sunbeams by a new high-camshaft engine. This particular machine is the 350cc sports mount."

"I HOPE IT IS NOT INVIDIOUS for a veteran like myself to extend a special welcome to the new high-camshaft Sunbeam engine. We oldsters can recall a date at which the two British machines famed for their really first-class workmanship were Sunbeam and Triumph. I always liked to straddle one of these two makes when reporting a six days' trial single-handed, for you knew in advance that nothing would break or fall off. Both firms, for example (to cite a small but vital point), scrapped all screwcutting tools at the least sign of wear, so that on a strenuous 1,000 miles every nut stayed put. On one occasion I thought Sunbeams had let me down; they volunteered the loan of a sports 350 for a Scottish Six Days, and when I collected it, to my horror it had no kick-starter. And I knew that throughout the week I must stop at the worst knuckle of every trials hills and restart somehow after the last of the lads had gone. No other mount was available, and I cussed 'orrid as I started north. But actually I had an extremely pleasant week, for the little 'Beam had a marvellous clutch and proved to be a tickle-starter. I could either re-start down the test hill, and turn in the road; or stick the 'Beam on its legs, start the engine by twitching the back wheel, and get away on the clutch. Now we shall expect the Sunbeam people to recapture past glories."—Ixion



The new tiddlers at Earls court faced formidable opposition over the Channel where the lightweight market was booming with machinery like this Hercules MF100, built in Germany where anything under 200cc was tax-free..



George Brough stole the Earl's Court show with his flat-four Golden Dream—Plinio Galbusera stole the Milan show with a 249cc V4 two-stroke and this extraordinary 498cc V8 prototype which comprised a brace of counter-rotating 250 V4s bolted to the

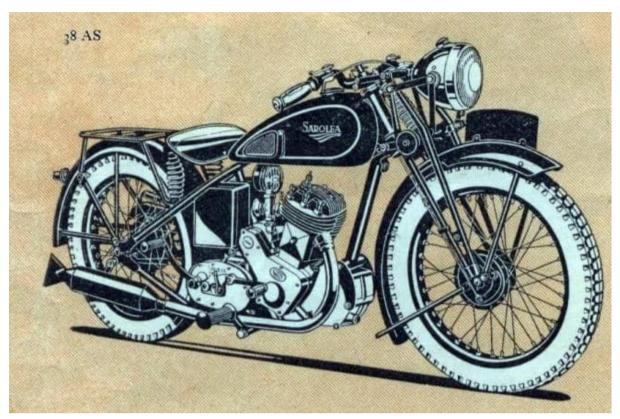
ends of the gearbox. What might have been...war stopped play although 17 years later Giulio Carcano would build a four-stroke dohc V8 for the Moto Guzzi Grand Prix team.



Not as radical, but gorgeous nonetheless, this is the 500 ohv Bianchi Freccia Azura Sport.



France was best known for its lightweights but it could still produce fine looking 500s such as this Peugeot P515.



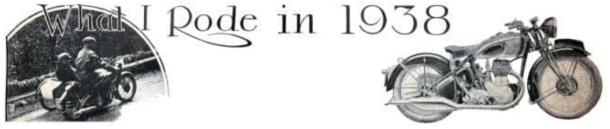
Belgium was also making some fine machines; this is a Sarolea 38AS 350.



These Polish troops are mounted on a Sokol ('Falcon') 1000 sidevayle V-twin, the

biggest bike made by the Central Automotive Workshops of Warsaw. The Sokols superseded the Polish army's Harleys and were based on the Harley, although the engine looked more liki an Indian.

It was Torrens' turn to write the Blue 'Un's traditional 'my favourite rides of the year' feature. It was published in the first issue of 1939 but as it refers to his experiences in 1938 I'm including it here.

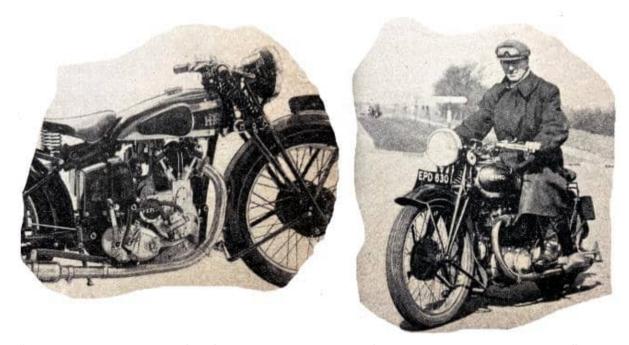


"The 250cc Royal Enfield sidecar outfit with 35 stone aboard romped up Lynton Hill, North Devon." (Right) "A sturdy sidevalve BSA which In conjunction with an Empire Star won for BSAs the Maudes Trophy for the most meritorious certified test of 1938."

## "Torrens" Describes Some of the Outstanding Machines He Has Handled During the Past Year

"NO, I CAN'T GRUMBLE: my log for 1938 proclaims a five-figure mileage, experience of a couple of dozen models, no punctures and no serious roadside bothers. On. the other hand, I've known more exciting years. My most thrilling experience was undoubtedly being left in charge of the Brough Superior 'Dream' engine five minutes after it had fired for the first time. So far as complete machines are concerned, except for a short run on the Velocette that won the Junior TT, it has been a question of riding the latest versions of old favourites—Ariel, Matchless, BSA, BMW, Royal Enfield, Vincent-HRD, and so on. There have been experimental features to try, but no complete machine that shrieked NOVELTY from front to rear. However, maybe that means more pleasure in store for me in 1939. I suppose no machine over the past ten years has established itself in public favour more quickly than the Speed Twin Triumph...It is not surprising, because the machine has given first-class service and proved very fast and lively; in addition, it is a good looker. Over the year I have ridden a number. The degree of balance achieved having regard to the crank arrangement—both pistons, as you know, go up and down together—is surprisingly good. I have even had a letter from one man who said that he was worried over running-in his new Speed Twin because from feel he was-quite unable to tell the difference between 30mph and 45mph. I cannot admit to having any similar

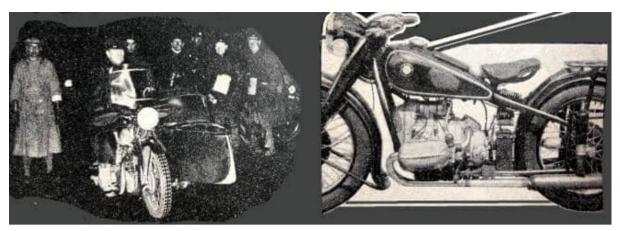
feeling. After all, the balance is necessarily single-cylinder. The great point is the smooth flow of power and the zest that the remarkable performance provides. On one very wet trip I had trouble with water in the brakes, which is a matter that has been investigated, and my only other criticisms of a motor cycle that deserves every fraction of its big success have been that on rough roads the model could be a bit of a handful, while at very low rpm there could have been greater smoothness and also better pulling. You may recall the article, 'Designer, Rider—and Critic', in which I related how one morning on the International Six Days, Mr Turner, the Triumph managing director, said he wanted to come with me on his Speed Twin, and I took him over a long stretch of road that was all twists and turns and bumpiness—did so on purpose, needless to say. Only a matter of weeks passed before the hyper-sports edition, the new Tiger 100, was announced, and with it details of a modified steering layout and a new and more progressive two-cam engine-shaft shock absorber. Things had happened quickly, for when I went to the factory to obtain details of the new model I was able to try out the new steering and road-holding. As I remarked at the time, the steering is of that safefeeling 'solid' type and the road-holding excellent.



"It would be a poor year if I did not have a run on a Vincent of one type or another." (Right) "The machine—my 1,000cc Ariel—only goes to confirm my previous experience that small cylinders and plenty of them spell day-in, day-out reliability and freedom from tinkering."

Another point stressed in regard to the Tiger 100 was the high engine torque at comparatively low revs. The Speed Twin has been improved in this respect by modified valve timing. My own type of multi, the 1,000cc Ariel, has been improved for this year by being made available with a spring frame. Some lucky riders have already taken delivery of new spring-frame fours. I am still waiting, no doubt because of the fact that I am after

several non-standard features with the idea of trying to add to my experience. Thus I cannot write of the behaviour of my 1939 model. However, I have had a short run on the 600cc spring-frame Four. Several readers have asked me why I have not gone in for this model instead of buying another 1,000. The reason is that having tasted the zipping acceleration provided by the 1,000cc model I should miss it were I to purchase a 600. As it happens, my short run occurred immediately after a 120-mile trip on my own machine. Thus there was a direct contrast. Had I no experience of the 1,000 I imagine my choice would be the smaller machine. Now I have been spoiled for it. There is nothing fresh that I can relate about my present model. The works fitted the 1938-type front brake with the floating cam arrangement so that I should be able to compare the new with the old. My old type was non-standard to the extent that the cam lever was about half as long again as the normal one in order that the brake might be lighter in operation. With the new design I found that the lightness and power were about equal to those of my modified brake. No other important change has been made to the machine, which has continued to give utter reliability except for that occasion when the contactbreaker rocker arm tried to seize-up towards the end of a 280-mile journey. The machine only goes to confirm my previous experience that small cylinders and plenty of them spell day-in, day-out reliability and freedom from tinkering. One man has told me that he habitually runs 10,000 miles without touching the engine of his four; with the various fours I have owned I've usually run 4-5,000 miles without altering even the valve clearances. As you may recall, I've yearned for a spring frame on my Ariel. Now I am having rear springing and a new model...Perhaps one of the most interesting trips of the past year was with a sidecar outfit that had an engine only one-quarter the size of that of my own solo—the 250cc Royal Enfield and sidecar which carted Tony Wilson-Jones, the head of the Enfield technical department, and me on a 600-mile week-end. Machine and sidecar, passenger and driver, together with luggage and riding kit, weighed 942lb: not so very far short of half a ton. Added to this load per 248cc we had 175 night miles against half a gale. Having covered many thousands of miles with small-capacity outfits in my school days, I was not anticipating that the Royal Enfield would not 'work', but certainly I had no idea that the total weight was going to be anything like so huge. Had I known the weight I might have had grave doubts about tackling Lynton Hill. As it was, Tony Wilson-Jones looked very glum when we weighed ourselves on a machine in Watersmeet Valley and found that the two of us in riding kit came within half a pound of 33-stone. As I recorded, the stalwart engine took us up Lynton at a speed that never dropped below 12mph and made so light of Porlock that we actually restarted beside the tea-gardens on the outside of the first hairpin bend.



"Over the year I have ridden (and driven) a number of Speed Twin Triumphs." (Right) "The only notable foreign machine I handled was a 600cc ohv spring-frame BMW."

Later, on a 162-mile trip we averaged almost exactly 30mph, including stops, one fairly lengthy as there was a short-circuit in the wiring for the lights. With the wind in its favour the machine covered within decimal points of 70 miles in a period of two hours, and the fuel consumption over the whole week-end, which included trials going and crosscountry work in addition to Porlock, Lynton and Countisbury, worked out at 68mpg. Under more usual conditions we should have probably obtained getting on for 80mpg. After our trip there were one or two people who said, 'Oh, yes! Interesting, and good proof of the capabilities of the 250 Royal Enfield, but so far as sidecarring is concerned a bit of a stunt.' My experience is that there is nothing of a stunt about using an engine of 250cc for sidecar work. Assuming a frame that is suitable, a sidecar which is light (I look upon the 115lb of the sidecar we were using as unnecessarily heavy), and commonsense in handling the outfit and as regards what is expected from it, the 250cc outfit can provide really cheap worthwhile motoring. Tax, insurance and fuel—all these cost little. The only question is, 'How will the machine stand up?' My experience has been that given sensible handling the answer is, 'Very satisfactorily'. A sidecar outfit of another type was the 600cc side-valve job that, in conjunction with a solo Empire Star, earned for BSAs the Maudes Trophy for the most meritorious certified test of 1938. Again I have related nearly all I can say. The engine proved beefy, really supple and capable of most things that a sidecarrist asks of his machine. That it will climb any hill that the normal tourist would tackle is proved by the machine's many ascents of Bwlch-y-Groes in the ACU test, and the Bwlch, you will remember, was easily voted as the worst touring hill in the country by the dozen famous trials stars who a year ago gave their views on the subject. The machine also proved lively, as can be gathered from the twin facts that it could be cruised at 48-5mph, and that with some throttle to spare, and under windless conditions tucked almost exactly 40 miles into 60 minutes. I have no criticisms of any real importance, and, as I have remarked to several readers who said they were buying a similar job, 'Here you have an outfit that should give you many thousands of happy miles.' The only notable foreign machine I have ridden over the past year was a 600cc ohv spring-frame BMW. I've now handled many of these Munich-made motor cycles.

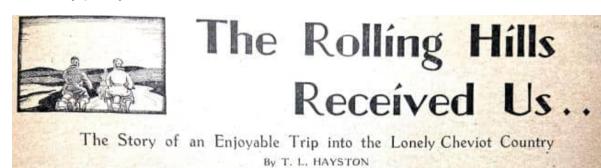
They need no eulogies from me. Of all the models I prefer the 500. Somehow, the 600 I sampled did not enthral me nearly so much as the R5s I've tried both with and without spring frame; it did not give the same silky feel, perhaps because of the additional 50cc per cylinder, though that alone does not seem to explain the matter. Accelerate hard at any speed up to about 40mph in top and the engine was thumpy unless the ignition control was used. To get silkiness one needed to make considerable use of the controls. No, I give the greatest number of marks to the 500, one of the most pleasurable motor



"I could not resist having a short flip on the TT-winning Velocette!"

cycles it has been my good fortune to handle. The only crab I have is that the gear change is not quite perfect. A super-sports mount which, although a single, has characteristics somewhat similar to those of the 600cc BMW is the model Vincent-HRD Comet. It would be a poor year if I did not have a run on a Vincent of one type or another. The particular mount I rode had much of the feeling of a racer—punch, life and a sense of well-oiled, well-made internals. This last year or two the Vincents have been endowed with much more acceleration, and allied with the high performance there is the same safe steering and excellent road-holding. I know of few machines that approach the Vincent in its inbred safety. My run on the TT-winning Velocette was very brief. 'Paton' was to do the test and I—well, I could not resist just having a flip upon it. Here was a machine that seemed unbelievable—a 350 single that gave the impression of being some remarkably developed racing 500. At some 4,500rpm the power comes in with the cut of a knife. There might almost be dynamite suddenly being induced in place of petrol-benzole. That was the only harsh thing about the model. I am neglecting low engine speeds because those you don't use. Controls, engine balance at high revs, brakes—there was smoothness everywhere. Even the roads seemed smooth with the combination of front and rear suspension. Yes, the degree of perfection attained by Velocettes in their singles is little less than uncanny. Now, having run through my brief list, I am left wondering: What has this year in store? Spring frames, Dreams, Tiger 100s, other new multis, other shaft-drive jobs...I wonder."

For your delectation, let's finish the year, as readers of The Motor Cycle did, with three touring yarns, taking us to a lost valley in the Cheviots, an excellent restaurant in the South of France and a dodgy cantina in Mexico. Enjoy! Bonne lecture! ¡Que aproveche!



"WHEN HOWARD AND ARTHUR suggested that we should spend a short holiday in the Cheviots I was not particularly enthusiastic. I had always associated them with sheep, border raiders and Scotland. Their rolling slopes, as seen from Carter Bar, do not give the slightest hint that they hide beauty for the seeking. My spirits rose, however, as the pannier bags were bolted on to my 'Thousand' – a day and a half in new country could at least be interesting, and life in camp is never tame with Howard. Life was better still as, lunch over, two 'Thousands' and a Norton left the grime of the city and followed the signs pointing north. In a surprisingly short time we were sitting on the summit of Carter Bar gazing into the valley below and telling each other what we thought about having forgotten a map of the district. The small-scale map did not show one road where we wanted it to be it only corrected my geography. Incidentally, the bulk of this rolling country is in Northumberland, including the 'Cheviot' (2,676ft). It was difficult to imagine from our lofty viewpoint that any of that landscape could be so high. We turned our wheels along the first road to the right. Soon, the moderately good road became definitely interesting. Walls and hedges disappeared (and the road nearly did!) and we were on moorland proper. Then we received the first check – the track divided. A penny decided the route, and so we pottered on. Those rolling hills received us kindly, the sun shone on the slopes which reared on all sides, and some of the gems for which we were looking began to be revealed. A few miles further on we struck a secondary road, which did not give any indication as to where it led. However, in due course we reached civilisation at Hownam. A charming old lady gave us a hint where to camp and sold us home-made bread, jams, butter and eggs. We followed her directions, and after four or five miles reached our destination—a blind valley, no road, nothing but a wee loch, a brook and the silence of the hills. While we made a meal of bacon and eggs, we watched the sun disappear behind the hills, and the shadows gradually lift up the opposite slopes as the sun sank lower.



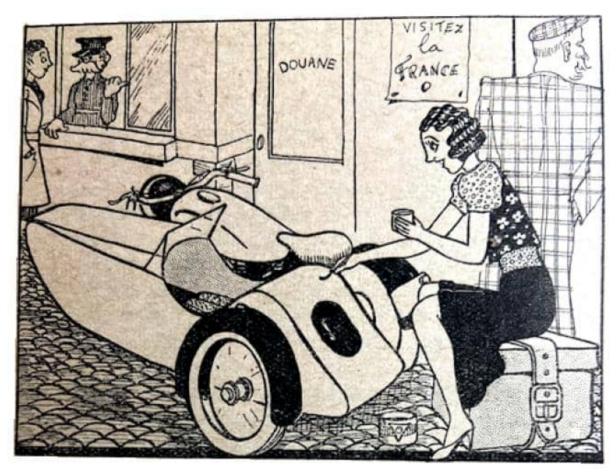
"We reached our destination—a blind valley, nothing but a wee loch, a brook and silence..."

Then, as it was only eight o'clock, we decided to explore. We chuffed quietly down the Kale Valley to where it opened out to broad pastures. The land was rich, contented cows flicked flies from their backs as the stood in the stream among a riot of wild flowers, and we sat on an old stone bridge and watched the trout going crazy over a hatch of flies the evening rise with a vengeance. We passed on, never meeting a soul. A heron rose at the sound of our machines and flapped steadily away, retracting his (or perhaps her) undercarriage after height was gained. Morebattle looked an interesting name for a small hamlet, so the usual place to find the 'why and wherefore' was sought. I forget the name of the inn, but it certainly was rural, with its old-fashioned double-burner paraffin lamps. The 'ancient' we sought was not so old and could not help us with the derivation of the name or provide any historical data. All he seemed to know was that the Kale was one of the best trouting streams in the country, and I agreed with his attitude towards the poachers who come in cars from the larger towns. Then it was back to our hidden valley. A camp fire was soon blazing, and over a nightcap of tea and a cigarette we sat wrapped in Stormguards round the fire, as a chill wind had sprung up. A thin drizzle followed, and so we turned in. My last impressions were the babbling of the 'Heather Burn'—beautiful name—the splutter of the dying fire, and the mournful bleat of a lamb drifting down on the night breeze. Next morning we explored farther. We climbed out of the head of the valley up the hill slopes, following the sheep tracks until the loch and the tent looked like specks in the distance. We tried to get along to the Coquet Valley. However, 1,000cc Ariels are not exactly lightweights, and to tell the truth both Howard and I were about out for the count after bucketing over what seemed like miles of heather clumps on Windy Gate Hill. However, we were amply repaid by the view. The

Bass Rock and the sea coast were visible, and to the west, ridge upon ridge of rolling hills stretched into the haze of distance. We returned (I never like returning) and as we slid down the slopes the heather twigs spanged on the spokes and gradually the tent and loch resumed normal size. An hour later we left our valley, and somehow or other I do not think it is the last time those rolling heather-clad hills will echo to the purr of a couple of 'thousands' and a throb of a 'single'."

## FRANCE IN THREE WEEKS

"WHEN DOROTHY (MY WIFE) decided that we should fill the Douglas outfit with petrol and oil and leave for the South of France I must admit that I experienced a certain trepidation. You see, I had only just returned from work with the news that I could have three weeks' holiday (two of them with pay). Nevertheless I was feeling rather depressed, for the weather had not been very good all the summer. But Dorothy had it all fixed. "There's a boat leaving Dover at midnight for Dunkerque," she said. "Can we make it?" "We can," I replied, and so with incredible speed the necessary chattels were packed in the sidecar and we were off. With only one stop for Dorothy to do a bit of shopping, we arrived at Dover at about 11pm. After cruising around the docks for a while we eventually found the ferry berth. There we hunted up a railway offficial, who, after explaining that we should have beeen alongside at 9.30pm, should have reserved a berth, should have fitted a 'GB' plate, and should have done numerous other things, finally provided us with a large Customs sheet enumerating the number of lamps, tyres, wheels and other odds and ends, together with a bunch of tickets and his best wishes. We then drove up the ramp into the well-appointed garage on the deck of the boat and, having rested the machine, retired to a large lounge to rest.

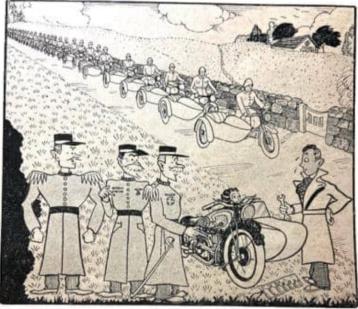


"While I sought the Customs man, Dorothy got busy with some paint she had bought."

We were called at 5.30am and found the boat had arrived at Dunkerque. We collected the machine and drove onto the quayside, where several imposing looking gentlemen awaited us. While I sought the Customs man, Dorothy got busy with some paint she had bought on the way to Dover. By the time I got back to the machine there was a very legible though slightly wobbly 'GB' painted on the back of the sidecar. After filling up a pink form called a laissez-passer, have engine numbers, etc, verified and paying about 8s for dock dues and the pass, we were free to cruise about in France for a maximum of twenty days. And so, within twelve hours of Dorothy's fateful decision, we found ourselves riding over the cobbled roads of Dunkerque. For the first hour the road surfaces were very bad, but after Bethune there was a marked improvement, in fact, out of the 2,000 miles we covered in France, not more than 50 were really bad. Our route, based on a map that Dorothy had bought for a shilling, carried us straight along the Allies front line during the war. The first day took us through Rheims, where we saw the newly restored cathedral, and Epernay, in the Champagne country, where we stopped at a cafe and bought a half-bottle of the famous wine for 12 francs – roughly 1s 6d. Finally, we reached Chantillon, some 300 miles from Dunkerque, at about 8pm. Thoroughly tired and hungry, we entered the first hotel we came to and asked for a room, only to learns that there was a cattle show on the next day and all the rooms were taken. Enquiry at the next hotel brought the same reply, and we began to feel decidedly

depressed. Faceed with a 40-mile run to Dijon, we decided to fortify ourselves beforehand with a meal and a drink in a large cafe in the square. Over coffee we explained our dilemma to the waiter. "I think I can help you," he said, "provided you don't want a palace." We assured him we did not and, although there were at least fifty customers and he was the only waiter, he conducted us five or six hundred yards round tortuous back streets, then down a narrow alley, where we found a tiny cafe with an enormous but pleasant-looking woman in charge. After the friendly waiter had explained our difficulty she said she would be delighted to put us up. I walked back to the bike with the waiter and, feeeling grateful for his help, offered him 10 francs, which he refused with considerable dignity. However, after some persuasion he consented to join me in a 'final', and we parted with many thanks on my part and 'don't mention its' on his. We slept soundly in a tiny room and did not awaken until 9 o'clock next morning. Then, after a hearty breakfast of delicious coffee and hot rolls, we were ready to go. The bill for everything was 35 francs—exactly 4s. Before we left we looked at the cattle show. The market-place was filled by black-clad peasants who moved around pens in which dozens of frighted little pigs were packed like sardines. From time to time a buyer would reach down into the tightly packed mass and pull one of the poor animals out by its hind leg, holding it squirming in the air, then it would be dropped back, squealing. When we got back to the outfit, which was parked on the other side of the square, there were several peasants sitting on their haunches looking at the engine. 'What do you





"The waiter...refused with considerable dignity." (Right) "The procession was already half a mile long and we began to feel quite embarrassed."



Just for fun, this is what the column of French army combos must have looked like (if you've read through 1937 you'll recognise them as Belgian-made Gillet Herstals) but as they were flat twins this column must have comprised another French army mainstay, the 800cc Gnome et Rhone.

think of it?' I asked. 'Ah!' said one of them. 'La Douglah, it is a very fine machine. The English are very strong on motor bikes. What horsepower is it? "Six," I replied, and he looked very impressed. 'The English are very strong on motor bikes,' he said. 'They win all our races here. We, the French, are stronger on bicycles.' Everybody seemed quite satisfied with this, so I said 'Au revoir,' let in the clutch and we moved off. They stood in a little knot, waving to us until we turned the corner. Climbing steadily, we soon left the flatish country behind, and in a few miles the first range of the Jura Mountains came into view, with, in the far distance, the snow-capped peaks of the Alps. We passed Dijon and Dole and then descended suddenly into Ferney, which is on the Swiss frontier and is famed because Voltaire lived there. On the advice of a friendly Customs official we took a bus into Geneva. The town is beautifully situated at the end of the lake. It is very spacious, clean and has an air of prosperity. We walked around, saw the cathedral, had an enormous lunch at a cafe on the Quai de Mont Blanc, and then went to se the Palace of World Peace. It is a very impressive building of white concrete set in the woods of the Ariana Park. We were told it cost £2,000,000, was designed by five famous architects, and provides permanent employment for several thousand people of all nations. After we left Geneva the most interesting part of our tour started—'Napoleon's route across the Alps'. Passing Annecy, with its lovely lake, we drove on up the ever-increasing gradients to Grenoble and thence to Gap, a delightful village several thousand feet above sea level. At first there were trees growing on the mountainside, but soon they stopped and there was only grass and, after that, nothing but the bare, sharp rock rising sharply on one side. On the other side there was a sheer drop several thousand feet to the valleys, where red-roofed villages nested on the green slopes. We stopped at one of the highest points and played snowballs like a couple of children. The run down from the Alpine peaks is one of the most beautiful we had ever seen. We arrrived at the little mountain village of Puget-Theniers that evening and sought shelter in the local auberge. The forty marvellous miles which seperated us from Nice were soon covered, and we saw for the first time the incredibly blue Mediterranean. I find it difficult to describe the beauty of the places through which we passed—Monte Carlo, Mentone, la Turbie, Monaco. We rode up to the Italian frontier and then headed



"We ate sumptuous meals under a palm tree in the flow-laden garden."

back towards Marseilles, finally stopping at a charming little place called Lavandon. We put up at a pension, where we stayed for a week. Our room looked out over the bay and we ate sumptuous meals under a palm tree in the flower-laden garden. The cost was exactly 11s a day, including wine and service, and we had quite a lot of both. But alas! The time came for us to return, so one morning we got up at 5.30am, said goodbye to our hostess and started off on the 800-mile trip home. We drove along the road to Toulon and then struck inland through Aix, Avignon and the 'nougat' town of Montelimar. By nine-thirty we had covered the first hundred miles. Our route lay down the valley of the Rhone, an original Roman road which runs straight as a die for miles on end. After Valence we came across the French Army—about a hundred sidecar outfits of massive construction manned by steel-helmeted poilus. They were cruising along at about 30mph so I twisted the grip and the Duggie flashed past them. Dorothy waved as we overtook the soldiers and they all waved back, and even the efficient looking officers, who were leading the procession in a car, smiled and saluted. Our pride in this rather swanky display was short-lived, however, for we had hardly covered more than a mile before a spluttering from the engine announced trouble. A few spasmodic jerks and we stopped. Then the Army came along. As soon as they saw us the leading car stopped and an impressive-looking gentleman got out and walked towards us. 'In trouble?' he asked. So we said, 'Yes, thank you very much,' and he said, 'The engineer of the French Army will repair the machine.' He then fetched an almost equally impressive-looking man. In the meantime the Army bikes were stopping one behind the other all down the

road; the procession was already half a mile long and we began to feel quite embarrassed. However, the 'Engineer of the French Army' was already on the job—he had the carburettor in pieces and was blowing down the feed-pipe. He said he was glad to examine the machine because it had horizontally-opposed cylinders and similar engines were fitted to the Army machines. After about 15 minutes' work he kicked over the Duggie and she started immediately, so we thanked them all profusely and started once more on our way. That night we stopped at Saulieu, having covered 403 miles in about 15 hours, and the following day we reached Paris. We explored the city, went up the Eiffel Tower and down the Seine subway, looked at the Louvre and saw the Sacre Coeur, Then, in the evening, we explored some of odd little dives in Montmatre. Next afternoon we reluctantly turned our backs on Paris and after a relatively uneventful drive reached Dunkerque. Our last francs were spent on a meal of mussels boiled in onion soup, chip potatoes and a final bottle of the good red wine of France. Then we boarded the boat and after a surprisingly short time were home again. And now we are already looking forward to next year's trip."

## MEXICAN INTERLUDE

"AHEAD ON THE DARK, LONELY Mexican road, my spot-light's beam danced crazily across a blurry-white animated cloud that soon materialised into two cotton-clad peons astride a white horse. They were waving frantically; now I could hear their urgent calls above the loud noise of my engine. When almost abreast of them I saw the great straw sombrero that lay just before me in the roadway, across the rut in which I was riding. Instinctively my wrist twisted the throttle and I climbed out of the channel, just missing the hat, and sending the startled horse skittering off to the side with its two riders clinging desperately. I stopped the engine and came to a standstill; the nervous stomping of the animal and the vibrant tenor commands of the men came crisply through the quiet night. Rearing and shying, torn between fear and their urging, the beast returned its riders to an irreducible ten yards from me. From that distance, interspersed with happy curses at their mount, the men shouted a plea to me in jumbled Spanish that I could not make out. I called back in my best 'Spanish-madeeasy' that I did not understand. They continued to wave and babble. I leaned my motor cycle on its prop-stand, dismounted, and walked over to them. The quieter one of the two wore a duplicate of the sombrero on the ground, while the other was bareheaded and happily and noisily drunk. The latter repeated his plea again and again, waving towards where my motor cycle stood beside the hat. I began to understand that it was his sombrero he wanted—he was saying that he would have got it himself, long before, only he could not reach it—and his body followed his arm in a great downward sweep over the side of the horse to demonstrate how he could not reach it. He must surely topple! I jumped forward to catch him, but even as I sprang, the quieter one behind made a deft and obviously practised movement which brought the hatless one circling

up to safety again. 'Furthermore,' the rescued one flowed on without interruption, 'once off, if was difficult, most difficult, to mount again, for the horse was very high, and so here they had been patiently waiting for aid.' I walked over to my machine, picked up the great, floppy straw, and returned it to the mounted peons. The front one reached for it with tearful eagerness; he was so very, very grateful (he said so many times), while the one behind directed his efforts towards getting it on straight and bringing the string under his chin.



"I walked over to my machine, picked up the great, floppy straw, and returned it to the mounted peons."

That accomplished, the front man twisted round towards me with a sudden surge of emotion, and reached down his hand to shake mine, while his friend grasped him steadyingly. That done, I must shake hands with the other, and while I moved to do this the one in front grandly thrust a little uncorked bottle down at me, and immediately I smelled, many times stronger, the acrid, joyous odour that radiated. Politely, but firmly, I declined the drink. Then. asserted the happy front one, with an oratorial gesture. We should all shake hands once more. With his pose, his grasp loosened on the bottle; I saw the dark glint of the glass as it slipped from his hand. Too late, I lunged to catch it, saw it flash past my reaching hands to a certain crash, then looked in surprise at the bottle where it had suddenly and mysteriously jerked to a dead halt in mid-air, and now hung magically framed in the middle of the black rectangular space under the horse's belly. After a moment it began to rise—the front rider had begun to haul up his precious supply of tequila, hand over hand, by a precautionary length of string tied from bottleneck to saddle that I had not noticed before. Triumphantly, he grasped the bottle once more, then leaned over for a very last handshake with me. That done I turned, and then

thought to ask them if I was still on the right road for Purepuro, and more distant Guadalajara. Si, si! This was it! In truth it was the road—and the front one made a wave with his entire body in the general direction of the route, while the other supported him with a steadying arm. I thanked them, and remounted my machine, returning their 'Adios!' again and again. I operated the kick-starter and, as the engine roared into life, the ground suddenly shook with terrified, uncontrollable stomping. I turned, and saw the frightened white animal with its swaving, floppy-hatted riders become a single dancing grey wraith and dissolve into the darkness. At 10pm I jogged down the cobblestoned main street of small Purepuro, and halted opposite where yellow light streamed out through the open doorway of an adobe-walled store. My engine was a never-failing advertisement; in a moment the whole curious population of the town surrounded me. I gained the entrance of the small store that already was filled with newcomers, and called across to the man behind the counter for ten litres of gasolina; while on all sides they plied me with questions: 'From where did I come? For where would I go?' The excited storekeeper's boy slipped by with a full ten-litre can in his hand. Tardily I pushed after him, trying to answer questions and to avoid stepping on their bare toes with my heavy, hobnailed boots. I was tired; I had ridden all day and I had not eaten since morning; the press of people made me a little dizzy. When finally I thrust through the tight ring around my machine the boy was standing there with the almost emptied can in his hand, while the crowd besieged him with their advice. With a sudden cold chill I saw that a funnel stuck up from the front tank—the oil tank! Already it was filled with gasolina; it brimmed over with the thin liquid. My almost empty oil tank filled with petrol! Someone in the crowd helpfully held out the tank filler-cap. Dumbly I took it and mechanically screwed it on, while my tired mind struggled with the calamity. I could siphon the petrol out if I had a hose, but I had none. What was hose in Spanish? I could not think. The boy was telling me enthusiastically that he had filled both tanks, and was there another tank? No! By all the saints, no! There were no more tanks! Helplessly, I gazed at the machine, my weary



"With a sudden cold chill I saw that a funnel stuck up from the front tank—the oil tank!"

wits trying to cope with this unexpected catastrophe. Suddenly a deep, steady voiced boomed out above the chatter, demanding in English to know what the trouble was. I turned to face a large, sturdy man whose strong, tanned face defied my classifying him between Mexican and Yankee. But there was no doubt as to his understanding of English, so I poured out my troubles to him. He would get a siphoning hose, he said, although that could wait till morning. For to-night the store-keeper had a room next door and a place to eat would still be open by the square. To all this I thankfully agreed. We hoisted the machine over the high curb and pushed it through to my room, and then the big man and I walked to the square. A single lighted candle stuck into a bottle stood in the middle of the room that we entered. Its dim, yellow light showed crude booths along the wall, and a black, open archway to an inner patio. My friend picked up the light and carried it over to the booth we chose. Presently a mysterious, dark Indian woman padded in through the archway, with the shawl that covered her hair held bandit-fashion in front of her mouth and nose. She stool silent and expressionless while the big man ordered scrambled eggs and tortillas and milk for me, and a beer for himself. The eggs came mixed with red pepper strips that were not unbearably hot; I tore of a half of one of the heavy tortillas and pressed another on to my friend to eat with his beer. I raised my glass of milk to his; we said 'Salud!' We smoked and talked. It was about 130 miles to Guadalajara, he thought. Still another hard day's ride. The cigarettes he produced were the common, strong, inexpensive ones with a picture of a raging tiger on the package. They were potent: he held the candle across to me and then to himself, while black shadows rushed over the walls...Outside again, we crossed the chilly, empty square. Half-hearted music came from a huddled group on a bench; they called out the big man's name as we came up, and we stopped. A couple of them had blankets that they all tried to share; one wore an American-style overcoat. They boasted a guitar and a mandolin, and one had a gourd with a single thick string across the opening that gave out a hollow 'boomp' when he plucked it. They limped through a melancholy song. I was

cold; I tensed myself together, my hands in my pockets, while they debated a song. One pushed the guitar towards my friend and demanded that he play. The others joined in urging him. The big man took the guitar, put his foot up on the bench, and plucked experimentally with a few chords. Then he started in his deep voice to sing a song I had heard many times, and they joined in, singing as if they were cold. He played the guitar easily and did not seem cold; with his strong leading the lot of them followed nasally, while the gourd 'boomped' in accompaniment and the mandolin's taut, tinny note followed the air...The song went on, over and over, until finally the big man finished and handed back the guitar. We left them huddled there and started back for the store. Behind us they struck up a number again; even after I had blown out the candle in my cold room and rolled myself tightly in my serape on the straw mattress I heard them faintly for a while, singing a plaintive, hopeless little song to the night..."



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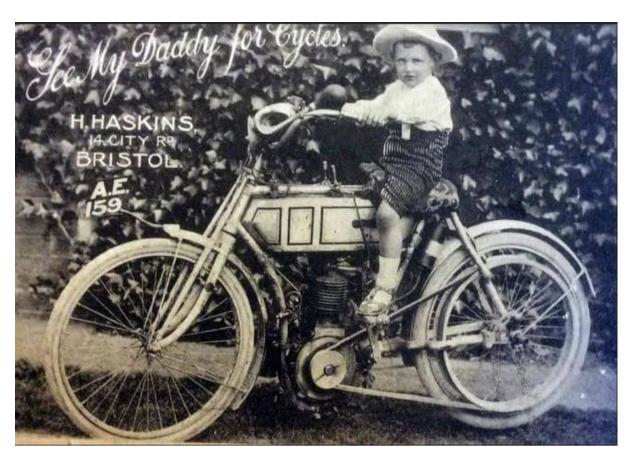
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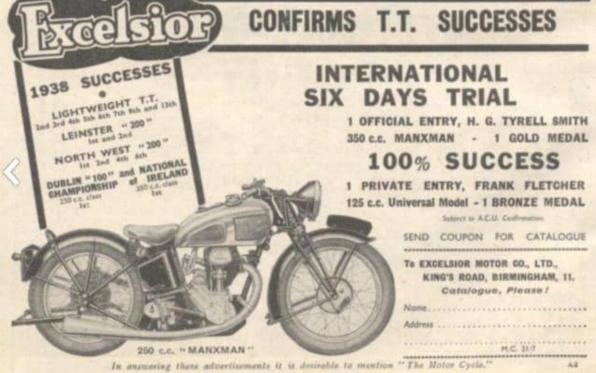
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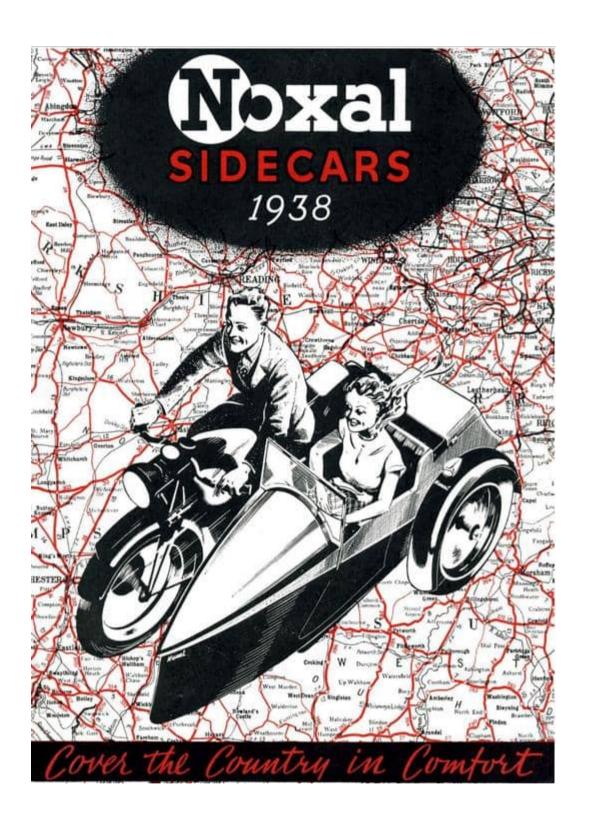
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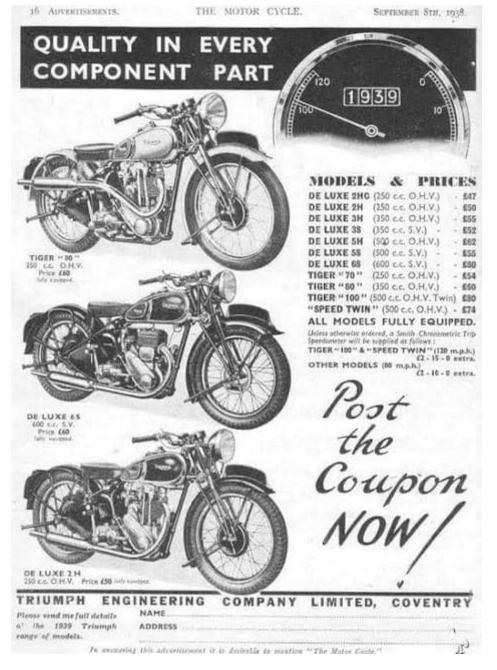
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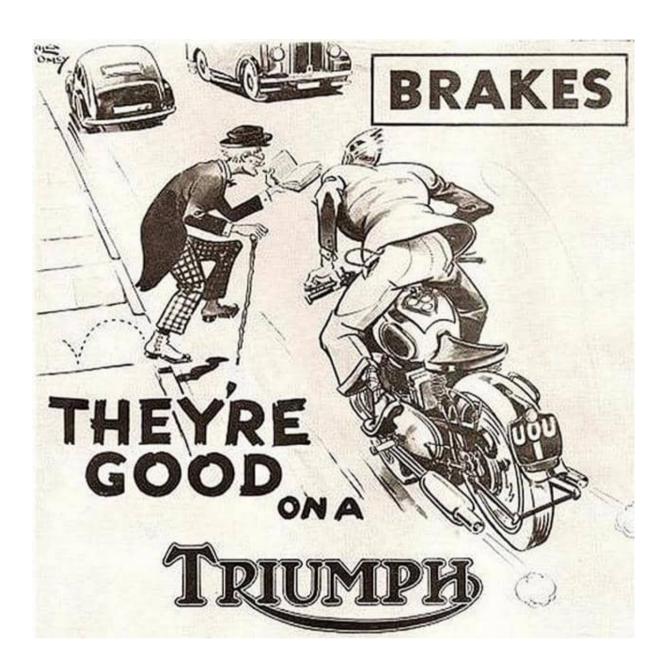
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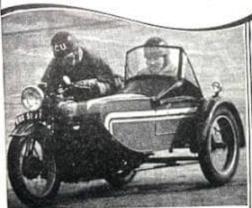




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th down used machines over £8.

The state of the state of		•
MATCHLESS, 1938, 500 O.H.V. Clubman, combination, dynamo, twist grip, dipper, electric horn, speedometer, 4-speeds, foot change, raised pipes, fitted Noval Sunshine Balcon 2-seater sidecar, finished red and black, locker at the rour, etc., one careful owner, small mileage, very		
exceptional condition  SUNBEAM, November, 1938, 500 O.H.V. de Luxe, Magdyno, twist grip, dipper, electric horn, speedometer, 4-speeds, foot change, one careful owner, run 1,000 miles only,	£52	10
brand new in every detail ARIEL, late 1937, 500 O.H.V., specially tuned Red Hunter, Magtyno, twist-grip, dipper, electric horn, pillion,	252	10
+speeds foot change, raised pipe, practically unworn tyres, very exceptional condition. MATCHLESS, late 1938, 350 O.H.V. Chibman, dynamo, twist-grip, dipper, electric horn, pillion, 4-speeds, foot	£42	10
change, one careful owner, very small mileage, practically brain new MATCHLESS, very late 1936, 250 O.H.V. Chabman de Lune, dynamo and magneto, twist-grip, dipper, electric hara,	£37	10
pillion, speedometer, 4-speeds, foot change, one careful owner, practically brand new. MORTON, late 1936, 490 O.M.V. Model 18, Mapslyno, twist- grip, dipper, electric horn, speedometer, 4-speeds, foot	235	0
change, one careful owner, very exceptional condition.  RUDGE, late 1836, 200 O.H.V., 2-port Ulater, dynamo, twist-grip, dipper, electric horn, pillion, speedometer,	£35	0
4-speeds, foot change, one careful owner, very except, con- MATCHLESS, late 1937, 500 S.V., Combination, dynamo, twist-grip, dipper, electric horn, speedceneter, 4-speeds, foot change, fitted Watsonian light Touring sidecar, acreen, door, becker at the rear, etc., small mileage, very	£35	0
B.S.A. late 1937, 350 O.H.V. Empire Star, Magdyno,	£35	0
4 speeds, foot change, practically unwork syrs, very exceptional condition.  O.K. SUPREME, 1938, 250 O.H.V. Sports 70, 3-gallon seariet saddle tank, separate oil tank, dynamo and seariet saddle tank, separate oil tank, dynamo and	£32	10
magneta, twist-grip, dipper, specification of the carefully used, very exceptional condition.  O.K. SUPREME, 1937, 500 O.H.V. J.A.P., Magdyno, twist-grip, dipper, electric horn, pillion, speedemeter,	£32	10

twist-grip, dipper electric horn, prilion, practically unworn tyres, very exceptional condition, practically		
unworn tyres, very exceptional condition.	por	
UNBEAM, late 1935, 250 O.H.V., Magdyno, twist-grip, dipper, electric horn, pfillion, 4-speeds, foot change, good tyres, very good condition	22	7 1
tyres, very good condition, 4-speeds, foot change, good		
LJ.S. late 1936, 350 O.H.V. 2 port de L.	225	5
exceptional condition	225	5 1
The second of th		3 9
twist-grip, dipper, electric horn, pillion, speedometer, 4-speeds, foot change, raised pipe, small mileage, very		
exceptional condition  (EW IMPERIAL, November, 1938, 250 O.H.V., dynamo, twist-eric species of the conditions of the condition of the conditions of the cond	£25	
EW IMPERIAL, November, 1938, 250 O.H.V., dynamo,	Enco	
Practically brand new	£25	(
twist-grip, dipper, electric horn, 4-speeds, good tyres,		
	£22	10
UNBEAM, late 1932, 490 O.H.V. 2-port Model 90 Mag-	****	
uyno, twist-grip, billion, horn, foot change, good twise	0.00	
very exceptional condition B.S.A., 1937, 350 S.V., Magdyno, twist-grip, dipper, electric	£22	10
horn, philion, speedometer, 4-speeds, good tyres, very		
exceptional condition LEVIS, late 1933, 350 O.H.V. 2-port, dynamo, twist-grip,	£21	0
LEVIS, late 1933, 350 O.H.V. 2-port, dynamo, twist-grip,		
dipper, electric horn, good tyres, good running order RUDGE, late 1933, 500 O.H.V. 2-port Special, dynamo,	£16	0
twist-grip, dipper, electric horn, pillion, 4-speeds, good		
tyres, very good condition	£12	10
FRIUMPHS, 1931 models, first registered 1934, 557 c.c.		
S.V., large saddle tank, separate oil tank, Magdyno,		
steering damper, horn, good tyres, one careful owner, paint and plating hardly marked, choice of 150 as		•
described above, ideal for heavy solo work or make very		
good combination	£11	10
good combination  PANTHER, late 1935, 250 O.H.V., dynamo, twist-grip, dipper, electric horn, pillion, speedemeter, good tyres,		
very exceptional condition, taxed	CIO	0
SUNBEAM, 1931, 500 O.H.V. 2-port, Magdyno, twist-grip,	-	
pillion, horn, practically unworn tyres	210	0
dynamo, twist-grip, horn, 4-speeds, fitted special racing		-
dynamo, twist-grip, horn, 4-speeds, fitted special racing sidecar, brake, cut-away sides, etc., good tyres, very		
	£8	10
BS.A., late 1962, 350 O.H.V., Magita, two twist-grips, horn, good tyres, very good condition, taxed	£6	10
	~~	•
addle tank, separate oil tank, Magdyno, steering damper, horn, driving mirror, good tyres, one careful owner, paint and plating hardly marked, choice of 200 as		
horn, driving mirror, good tyres, one careful owner,		
described combinations.  excellent combinations.  B.S.A., late 1931, 350 S.V., large saddle tank, samp oiling,	25	0
B.S.A., late 1931, 350 S.V., large saddle tank, sump oiling,	77.2	
	24	10
Magayno, tandalin, taxed acceptional condition, taxed acceptional condition, taxed acceptional condition, taxed acceptional conditions are supported to the support of the	41	
mount office, magayno, panent, man, Book of the	1	10
running order Son S.V. Combination Magdyno.	£3	0
		1
large saddle tank, separate oil tank, fitted 4-point chassis, supshine saloon body, locker at the rear, etc., good tyres	22	10
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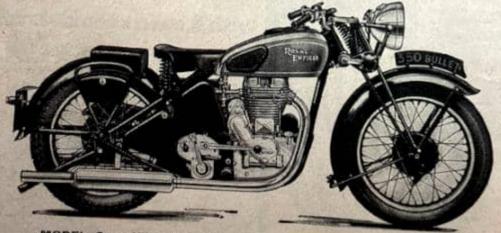
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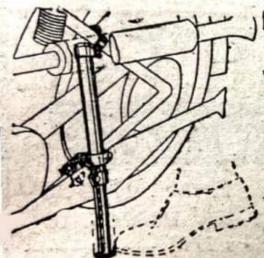
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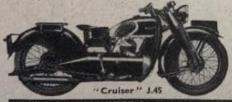
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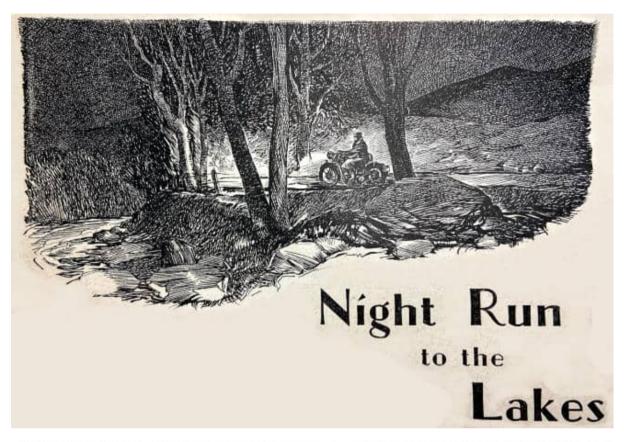
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We ended 1938 with some ripping yarns; let's start 1939, as The Motor Cycle did, with another story of a man and his machine.



How a Sudden Decision Resulted in an Adventurous 300 = Mile Journey

By E. J. K. WICKSTEED

"THERE WERE SEVERAL unusual features about the journey. First, it was not until two hours before I actually started that I received the message and knew I was to travel some 300 miles across England. For various reasons my machine had not been used for fourteen days, and this fact gave me a momentary qualm. By a lucky coincidence I had been working on the machine during the morning: nuts were tight, the oil had been changed and the 3¾ gallon petrol tank was almost full. It was about the battery only that

I had misgivings—obviously it could not be fully charged. Would it stand up to an allnight session? However, I decided to trust the dynamo, and comforted myself with the thought that even if my fears were realised, the controlled voltage would prevent any bulbs blowing. It was my intention to arrive at my destination, a lonely spot near Ambleside, in time for breakfast the next morning. I calculated that an 11pm start would leave ample time; therefore, after turning on the radio for the news bulletin, I settled down to enjoy a rest. My feelings were of pleasant anticipation mingled with excitement. Never before had I travelled all through the night. My longest day trip had been from Berlin to Aachen, and although the distance of the journey now planned was relatively insignificant, yet the thought of an 11pm start after a busy day made me think of myself almost as an adventurer. These conceited reflections were interrupted by the silver tones of the BBC announcer forecasting squally weather over most of England. I looked at the stars outside and laughed. Not even an English weather forecast was to be allowed to damp my ardour! At eleven o'clock, therefore, I set off from a little village near Basingstoke, in Hampshire, in the direction of Oxford. The Velocette pulsed with life, and glancing at the illuminated speedometer I saw that it showed 60-65mph—my usual speed on the open road, and one which the machine will maintain indefinitely. Shortly after leaving Pangbourne, my journey was all but brought to a premature close. On the crest of a hill I was suddenly confronted with two sets of head lights—a private car was overtaking a slow-moving lorry on the bend and was completely blocking the road. There was no time to stop—the only thing to do was to steer as near to the hedge as possible, and this was made difficult by the dazzling head lights of the car, which the driver had omitted to dip. For one awful moment I felt my coat brush against what I presume was the wing of the car, but somehow I squeezed through safely. My first reaction of relief was soon succeeded by anger, and turning round I gave chase to the offending motorist. I shouted as I came alongside, and the driver stopped immediately. I pointed out to him that I might have been killed through no fault of my own. "Poor old chap," he kept on repeating, "horrible corner, wonderful driving, really scared me." Something in his manner made me look at him closely. He was wearing a dinner jacket, and although he was not drunk his eyes had the glaze of a man who had been 'doing himself well'. I took the number of the car and also of the lorry, and was minded at the time to report the matter to the police. Actually I have not done so, but surely there is a tremendous moral in this unpleasant experience. Soon I had passed through Oxford and was speeding towards. Bicester and Buckingham. High above, the half-moon was shining, not palely but with a reddish-yellow glow, making the night clear. A barn owl flew in heavy flight across the road; the beam of the head lamp exaggerated the whiteness of its wings. Suddenly above the noise of the engine rose the unearthly shrieking of a little owl, and I thought sadly of the heavy toll this bird takes of small bird life. For a few miles after leaving Buckingham my route took me along the main Birmingham road before turning off to Northampton. There was a great deal of heavy traffic. A number of lorries parked outside one of the numerous small cafés that cater

for night drivers attracted my attention and, enticed by the thought of hot tea, I eagerly entered. The atmosphere was warm and friendly, but the majority of the men who were slowly sipping their huge cups of tea gave an impression of weariness. It was while running into Market Harborough that I had an amusing experience. A policeman darted from the shadows and waved a red torch frantically to and fro in front of me. I stood on everything and brought the Velocette to a halt in a commendably short time. "What is wrong?" I asked. The only reply was a portentous approach by the aforesaid policeman. who began gingerly to feel my haversack. This was too much. I searched my mind for any recent deed which could possibly be given a criminal interpretation, only to receive the 'all clear' signal from my untroubled conscience. It was with dignity, therefore, that I asked what foul crime I was supposed to have perpetrated. The policeman replied in a pleasant Midland voice that he was just seeing who I was. As my identity could not possibly be known to him, I thought this rather irrelevant, and questioned him further. It then transpired that an individual on a fairly new motor cycle—make unknown—had been 'cracking' automatic machines and removing their nicotine contents. All stations had been warned to keep a look-out for him. I left the policeman with mutual apologies—he for disturbing me, I for disappointing him. Soon I was running into Leicester. At Leicester I stopped at an 'all-night' garage, which I had previously looked up in my AA handbook. It was while the tank was being filled with petrol that the first ominous drops of rain began to fall. The garage had informed me that it was nothing, but remembering the weather forecast, I was not so optimistic. By the time I had reached the outskirts of Leicester it was really pouring, and I stopped to make myself as rainproof as possible. When I was about to continue, a small two-stroke Excelsior drew up alongside. Both rider and pillion passenger were hatless and neither wore anything in the way of anti-rain kit. I concluded, therefore, that they must be local lads out rather late. But to my surprise they enquired if they were on the Loughborough road, as they wished to reach Doncaster that night preparatory to going farther north. They then produced the smallest and, incidentally, grubbiest road map I have ever seen. It had obviously been used extensively, and in reply to my enquiry they told me that they had already toured Devon and Cornwall. I looked at their minute machine with its tiny light, and marvelled. From eyeing the mechanical I turned to the human, noted the single small haversack and the light overcoats of the two men, and marvelled still more, Here, surely, was enthusiasm, but in its complete unpreparedness, touched with imbecility. The ride between Derby and Buxton was one of the worst I have ever experienced. Heavy mist was added to the driving rain, reducing my pace to a crawl. Consequently, a heavy discharge showed on the ammeter. The beam grew dimmer and. dimmer, until finally it was only maintained by the current from the dynamo, and owing to the slow speed at which the engine was revving the output proved totally insufficient. I was reduced to revving up the engine for a couple of minutes; then I would continue until the battery again went dead, and the process would have to be repeated. By the time I had reached Buxton I had had enough. I sought shelter in a churchyard, ate some damp

sandwiches and prepared to await daylight. At 4.30am I was on the road again, creeping slowly towards Manchester. Two things impressed me in these parts—first the early hour at which the factories appeared to be working; and secondly the large number of motor cycles on the road, presumably carrying their owners to work. At last I reached Lancaster, and smoke, drabness, and the treacherous surface of wet pavé were behind me. Before me lay the road to Kendal and the Lake District. Due to the excellent new road it seemed no time before I had left Kendal en route to Windermere. I went faster and faster, like a tired horse that is nearing home. Soon I was in the midst of this country of becks, mountains and lakes. As if to welcome me, the sun came out from behind the clouds, and the consequent play of light and shadow on the hills presented a constantly changing scene of indescribable beauty. It was a perfect end to my journey. But to descend to the mundane, so, of course, was an enormous breakfast and bed!"



The following tale of woe, also from the Blue 'Un's first issue of 1939, is noteworthy for two reasons. Primus, as far as I can recall (and I have spent a lot of time poring over the Blue 'Un) this is the first mention of a Dave (he's a well meaning idiot but so am I). Secundus, this is the second mention of baked beans in this timeline (1895 for the first in case you were wondering) and some would say it's about time. OK Dave, do your funky thang.

"I SUPPOSE THERE ARE several contributory factors to this little tale. If Dave had not been a motor cyclist I should never have met him; also, if we had not both been fond of camping we should never have spent that night together; and I suppose Mr Heinz should be brought into it for making such delicious pork and beans. To get on with the story: We had been in for a dip, and, as usual, had very large appetites, so we decided on two tins of the aforementioned beans for breakfast. In fact, we were so hungry that Dave said he knew a quicker way of doing the beans than as per instructions, so I let him have his own way. With the Primus roaring at full blast he carefully balanced a tin on the flame. I reminded him about the theory of expansion—but no holes in the top for Dave! That was the secret—when the end bulged the beans were ready. I finished cutting the bread, and we both sat in our costumes and hungrily watched the tin—and it had certainly bulged visibly. Dave then poked it off with a stick and jabbed it with the tin-opener. I should imagine Vesuvius in an angry mood is mild to the spurt of steam and sauce that came from that tin! Nothing daunted, Dave put the other tin on the flame and then hacked the lid off the first one; he was right, the beans were done to a turn. We were just arguing about the pressure necessary to bulge the tins when a gun went off somewhere, followed by a howl from Dave. When I could appreciate the situation, there was no sign of the tin, the Primus looked very sick and was out, and Dave was plastered with beans, and yelling lustily. We picked them off as best we could, and every bean had left a

blister. Dave couldn't appreciate the joke —he cannot even to-day—but if you want to make him really annoyed ask him how he enjoyed riding five miles to a doctor in bathing trunks, then five back with yards of picric bandage round him, topped by the doctor's multi-coloured bath robe. And, if you want to see a man look like committing a murder, ask Dave to show you how to cook pork and beans."

PS—I found the tin as fiat as a pancake ten yards away, but I never found the pork.—
TLH."

NEWS FROM GERMANY: "Car thieves in Germany are to be sent to concentration camps."

NEWS FROM ENGLAND: "Wandsworth Borough Council has recommended that the foreman gardener of the parks and open spaces committee be provided with a motor cycle."

"FROM A READER'S Christmas card to the Editor: 'Farewell 1938. Good luck to blown multis, spring heels, hydraulic brakes, pneumatic forks, unobtrusive performance and windscreens next year.'"

"BELGIUM, SWITZERLAND AND Holland have the densest traffic of a any European countries, excluding Great Britain. Belgium has 10.5 vehicles per mile of road, Switzerland 9.2, and Holland 9."

"THE NUMBER OF diesel-engined vehicles in use in Britain has increased from 6,700 to 20,100 in four years."

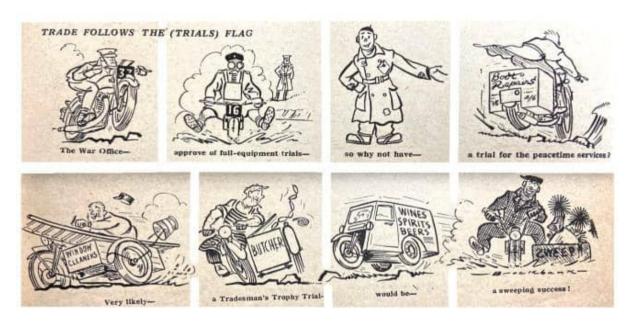
"MOTORIST AT LONDON court: "I saw the lady's signal, but with women drivers you can never be sure what they mean."

"VELOCETTE RIDERS won both Junior and Senior events in the Australian TT held on Boxing Day. Mussett and Hannaford (Velocettes) were first and second in the Junior TT, and Hannaford (Velocette) and Mussett (Junior Velocette) were first and third respectively in the Senior."

"JOE CRAIG, the Norton team chief, has resigned from Norton Motors. It is stated that the Norton experimental department will continue to function as in the past, though without the services of Craig."

"HOW SPEEDWAY TEAMS FARED— official results of 1938 competitions. Test Matches (England vs Australia), winners: England. World's Speedway Championship, winner: AG Wilkinson; second, J Milne; third, W, Lamoreaux; fourth, L van Praag. International Matches (England and Australia vs Canada and USA), winners: Canada and USA. National League (First Division):1, New Cross, 31 match points; 2, West Ham, 27; 3, Wembley, 27; 4, Wimbledon, 27; 5, Belle Vue, 22; 6, Harringay, 21; 7, Bristol, 13. National League (Second Division): 1, Hackney Wick, 24; 2, Norwich, 24; 3, Southampton, 18; 4, West Ham, 18; 5, Lea Bridge, 16; 6, Newcastle, 15; 7, Sheffield, 13;

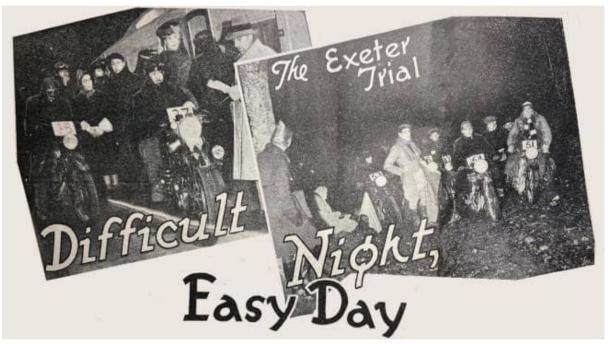
8, Birmingham, 12; 9, Leeds, 4. ACU Cup: West Ham. National Trophy: Wimbledon. London Cup: Wimbledon. Provincial Trophy: Norwich. English Speedway Trophy: Belle Vue Reserves. Northern Cup: Newcastle."



"THE FIRST QUESTION IS, 'What is going to happen over the TT now that Nortons have dropped out for 12 months?' It is going to be a bit odd, isn't it? On the other hand, do you recall how often Nortons have won, and but for them the winner would have been a Velocette? I am not so very disturbed about Nortons giving the 1939 TT the go-by. Apart from anything else it is about time that those staunch supporters of road races, the Velocette crowd, had their full break—they seem to have been only seconds behind for years—yes, seconds over 264 miles. Moreover, they are thinkers and triers with any amount of brains and manufacturing skill. I shall be surprised if my faith in them as warders-off of the foreign challenge is misplaced. What is interesting is the question as to what Norton riders will do for 1939. As was remarked a week or two ago, no nonracing manufacturer can now say that the reason he abstains from racing is that he cannot obtain the services of one of the stars because they have all been cornered by Nortons. All the same, I cannot see many non-racing manufacturers blossoming forth. They are shy little birds, and after Joe Craig and his men and Harold Willis and his have set such a pace, and the whole racing world is thinking of multis and supercharging well, it is a bit of a job, isn't it? As the director of one famous concern remarked a few days ago, 'The reliability of Nortons and Velocettes in the TT is amazing; these two firms have put the speed up to roughly 90mph average and still their machines are reliable. It is uncanny; what hope have we got of winning even a replica?' 'Yes,' I replied, 'but do you remember that magnificent demonstration of high-speed reliability by Rudges?' Mr Director remembered it only too well since he was a rival in the same markets, but he countered my remark by saying, 'Ah! yes, but who in these days of specialisation can

take a standard job and hope to be in the replica class—even the bronze replica class?'."

"WILL THE TT RACES continue? Is it desirable that they should do so? These two questions appear to the eyes of any sporting motor cyclist to smack of heresy. As it happens, however, both questions were answered in the negative last week by a manufacturer of world repute. His view is that the TT has been of no value to the industry for many years; that there is no prospect of it becoming of value on its present lines; and that the ACU, if it had been wise, would have remodelled the TT years ago. That the TT has been allowed to be the master of design instead of the servant is a main grievance, and we know only too well that it has done much to lead design astray. We also agree that supercharging has no obvious future as regards road machines, although essential for racing. There are other objections, not the least of which is that in these days of special machines the cost of competing is too great for the average manufacturer. The particular maker whose views we quote considers that the entry will steadily dwindle until the TT is no more. We are not so pessimistic. Moreover, we feel that the TT, by developing the multi-cylinder engine and placing it upon a pedestal can be of inestimable value at the present juncture. On the other hand, we consider that it would be excellent if the ACU ran an additional event limited to sports—as opposed to racing—models. The questions are, of course: 'Would there be adequate support even for this?' and 'Would it be possible in these days of production-type racing machines to provide a race that was both fair and informative?"."



"Well wrapped up against of the night, the first of the London contingent prepare to leave Virginia Water: HN Toomey (1939 990cc Brough Superior) and TN Blockley (496cc BSA)." (Right) "Waiting their turn to tackle Fingle Bridge in the early hours of Saturday

morning: JF Kentish (498cc Vincent-HRD), JH Hodgkinson (349cc Triumph), AJ Nichol (349c Triumph) and ET Pink (497cc Ariel)."

"A DIRTY night followed by an easy, not unpleasant day—that is a fair summary of the MCC's Exeter Trial. As usual, the famous long-distance winter trial started from three points, namely, Virginia Water, Stratford-on-Avon and Exeter. In each case there was a night run of approximately 150 miles, ending at Exeter, where there was a stop for breakfast; then followed the trials section of the route which consisted of 148 miles and contained half a dozen observed hills. The finish was at Bournemouth. In a number of ways the trial was very different from its immediate predecessors. In the first place there was the huge motor cycle entry. In the list were no fewer than 205 solos, sidecars and three-wheelers —this large motor cycle entry for a long-distance night trial held in the depths of winter! Secondly, it was the first civilian event that the Army has supported in large numbers. All told, there were 68 officers and men taking part. The event took on a new and official-looking character, for all the Service riders were in uniform and riding WD machines. In addition, running along the route were Army trucks bearing fuel and oil supplies. Thirdly, this year every competitor had to use standard tyres—competition tyres were barred under the new ACU and RAC rules. Owing to the regulation demanding standard tyres the trial reverted somewhat to the old style of event as regards route and, therefore, difficulty. As usual, competitors had a go-as-youplease run during the night. All they had to do was to check in at their correct time at one specified point between their starting point and the breakfast stop. The competitors from Exeter started first—there were only 11 from this point; then the 25 from Stratfordon-Avon and, finally, the big London contingent from Virginia Water. Those starting from the Midlands wondered whether there would be any trial because there was heavy snow, and it seemed likely that farther on there would be blocked roads. One or two actually 'phoned through to find out whether the event had been cancelled or not. The snow continued for the first dozen miles or thereabouts, and then ceased. The London men encountered very different conditions. After a bitterly cold day, during which the thermometer appeared to show no inclination to rise above freezing point, competitors arrived at the start to find that with all their many garments on—two of this and two pairs of that, and so on—they were actually hot. A south-west wind had swept across the country, bringing with it mild weather. "We are going to have a good run after all," was the general comment, though some had more than a suspicion that the night would be wet. Because of the bitter day there were not the usual crowds of spectators—only a hundred or two instead of many hundreds. At half-minute intervals the competitors got under way and proceeded towards Camberley, Basingstoke, Salisbury and Shaftesbury, where the intermediate check was placed. Adventures came early. The night was now extraordinarily mild.





"JFS Polden's passenger leans back over the rear wheel of the Triumph outfit in order to assist wheelgrip as they tackle muddy Woodhaynes Hill." (Right) "This view of JH Hodgkinson (349cc Triumph) rounding one of the many bends on Fingle Bridge gives a good impression of the conditions under which the first hundred or so competitors tackled the hill."

All that marred things was a slight drizzle—just sufficient to wet the roads apparently. Anyhow, the road down into Camberley glistened. 'Just moisture,' thought the average man, and hurried onward. Then of a sudden his machine might get into a slide, and he and his one-time mount would go skating along the highway side by side. Yes, that glistening surface was wet ice, and famous riders were to be seen riding along with their feet down. Ice—Then Rain! How many actually came off on this section will never be known—four were off in a matter of minutes and, to judge from the many scratches in the road surface caused by footrests, the total must have amounted to dozens. Lieut JF Rice (490cc Norton) was unlucky in that he had to swerve to avoid a skidding car that was coming fast from the opposite direction. Violent swerves and ice do not go well together; the Norton skidded and fetched up with the exhaust pipe off the stub at the port. However, with the aid of Lieut AK Ames, he was soon travelling onward again. Happily the ice did not last. The only real trouble in this direction the whole night through was the unexpected patch just before Camberley. Instead of ice there was rain—windswept rain. This started in earnest when the first men were approaching Salisbury Plain. Right from one end of the Plain to the other it was a question of grin and bear it. The rain, borne by the strong wind, acted much like a flail. The conditions were vile, and very glad were the competitors of the hot coffee and sandwiches that awaited them at the Blinking Owl, just before Shaftesbury. It was a very bedraggled crowd that hurried inside. The Army riders, wearing their service kit, seemed worse off than the majority; many of them were decidedly wet. From here competitors passed through Shaftesbury, with its check, and on to Yeovil, Chard and Honiton. One rider was seen in trouble with a puncture; it was a Vincent-HRD, and thus the owner was blessed with the

Vincent quickly detachable wheel. At Yeovil the police were busy trapping in the 30mph limit—yes, even at three and four o'clock in the morning. There was also a trap in operation on the route from Stratford-on-Avon. Once the London competitors got on high ground they found themselves groping their way through cloud. For mile after mile this went on. Down in the valleys \_it was clear, but only for a bit; on the last part of the run into Exeter there were patches of mist—not a lot of mist, but sufficient to be rather troublesome. Then the usual excellent breakfast at Deller's Café and on to Fingle Bridge. near Drewsteignton, the first of the observed hills. Breakfast had the effect of making many feel sleepy. However, Fingle was soon to wake them up again! By the time the first men left Exeter the rain had almost ceased, but the night was still very dark, and the route to Fingle Bridge was not too easy to follow. The MCC had chosen a route to the hill which covered tortuous lanes, and JTC Courtney (348cc Ariel) was not the only one who slid into the ditch through taking a bend a little too quickly. The ascent of 'Fingle' on standard tyres and in the dark was not by any means an easy proposition at that early hour; yet, although the hill was wet, there was a surprising number of clean climbs. True, there was a path up the hill discernible in the light of the head lamp, but while most of the loose shale on the bends was absent, there were many large loose rocks about. Competitors had to restart after the first bend, and the second and third bends did not prove too difficult. Driver CFG Baker (490cc Norton), however, got too near the bank and had to foot, but GEH Godber-Ford (249cc AJ W), in spite of a series of terrific wobbles, buzzed his way up standing on the foot-rests. It was on the fourth and fifth bends that most people came to grief. These are close together, and there is an awkward ledge just round the fifth bend. SN Oxborrow (348cc Ariel) showed how. the bends should be taken—slowly and as wide as possible—and AGD'A. Sugden (499cc Vincent-HRD) made the hill look just as simple. DW Bray (497cc Triumph) was very unlucky, for, after a good slow climb he hit the rock ledge awkwardly and had to dab. Of the sidecar men from Stratford-on-Avon, FH Whittle (598cc Panther sc) and FW Stevenson (980cc Brough Superior sc) were easily the best—Stevenson drove up on little more than a whiff of throttle. After a valiant attempt with an oldish mount, LC Dagwell (598c Panther sc) had to give the hill best when the worst had been surmounted. First of the London starters was HN Toomey (990cc Brough Superior), who made a marvellous plonking ascent which stopped rapidly when he hit the ledge. TN Blockley (496cc BSA) was just as slow, but his machine surmounted the ledge without trouble. Private C Beatham (490cc Norton) made one of the most hectic ascents of the day; he rode through all the loose stones and rocks and disappeared still firmly hanging on to the model feet-up. Most of the Army men on this hill used speed tactics, which generally resulted in failure, and in between their ascents would often come a civilian making a slow and neat climb. Two outstandingly good climbs, after a series of failures, were made by SE Cunningham (497cc Ariel), who used his body for balance, and AE Hare (997cc Ariel), who trickled up the hill very slowly giving a perfect demonstration of

slow pulling. AA Smith with his motorised bicycle failed to arrive; he had dropped out at Sherborne on the run down.



"Early arrivals at Fingle Bridge had to cope with darkness as well as loose stone and gradient. Here is ER Osier (347cc AJS) tackling the combination with the aid of a little footing." (Right) "The Army of to-day's all right! Calm and confident, 2nd Lieut J White approaches the steep part of Simms Hill with his feet firmly on the rests of his 347cc Matchless."

Probably never has Simms Hill with its maximum gradient of 1 in 23/4 proved so easy for a winter trial. Not only had a deep rut on the right-hand bend at the foot been filled in with tarmacadam, but there was tarmacadam in patches up the middle of the hill, and much of the usual slime at the sides had been washed away. The first trio to tackle the hill— JTC Courtney (348cc Ariel), CDT. Field (348cc Triumph), and CTC Cawsey (499cc Royal Enfield)—all made perfect touring climbs. Cpl HRC Bates (490cc Norton) hit one of the few rock outcrops with his back wheel, slewed sideways, but straightened up. RW Sutton (249cc Triumph) had a roughish passage near the top. Then came W Bray (499cc Royal Enfield), with a very neat pilot-jet climb. Already it was light enough for The Motor Cycle man to write his notes without the aid of a torch. Soon competitors were tackling the hill in daylight. Dvr CFG Baker (Norton) stood high on his rests, but hurriedly returned to the saddle when his machine wandered into the rough at the side. By dint of manhandling he got the machine under control again and disappeared safely out of sight. ER Osler (347cc AJS) was the first to come to a full-stop; he got in a rut near the top and after a few tinkles from his engine came to rest. EF Cope, with the two-engined BSA three-wheeler, went well for the first part of the hill, the two-stroke used to drive the back wheel emitting clouds of smoke. Suddenly the engine cut out as if the plug had oiled. SN Oxborrow's 348cc Ariel sounded as if it were too highly geared, and he had to foot over the summit. In spite of bouncing, LF Clouder (990cc Brough Superior sc) stopped with wheelspin on the last 15 yards. HKG Deacon (249cc SOS) came to rest early on, and, after running backwards, toppled over. LC Dagwell (598cc Panther sc) carefully kept to the tarred portion as far as it went; where it stopped he stopped, with wheelspin. FW Stevenson (980cc Brough Superior sc), however, hurtled up with his

machine hopping and leaping over the rough, making quite one of the finest passenger-machine climbs. JM West (494cc BMV) made a very fast and perfect climb. Pte RJS Scovell (499cc BSA) was equally good, while TN Blockley (494cc BSA) went up on the pilot jet and made as perfect a show as could possibly be imagined. 2nd/Lt ERD Palmer (490cc Norton) had bad luck: when going well and nearly over the summit his gear slipped out. Then EA Knight (494cc BMW) tried hard to pick the best possible path, but got in a slide and finally ended high up the bank. ET Pink (497cc Ariel) toured up quietly yet fairly fast. One after another the solo competitors made perfect climbs. Two who were not so fortunate were BSM Davis (490cc Norton) and Lt FC Faulkner (490cc Norton), both of whom ended up by smiting the bank. 0N Wilson (499cc Triumph) petered out, apparently through attempting to climb the hill in second gear...From Simms there were 30 miles of good roads with the route heading eastwards on the return to Bournemouth. Then Higher Rill, near Ottery St Mary, had to be tackled. This hill is straight and not very steep, and last Saturday the rain had washed most of the leaf-mould from the



These caricatures of Exeteers, courtesy of *The Motor Cycle's* artist, are rather charming, don't you think? There are more at the end of the report.

surface leaving a hard bottom with plenty of wheelgrip. Speed climbs were common, and of those seen the palm for the fastest climb of the day goes to L-Cpl PG Kent (347cc Matchless), who nearly made his valves bounce...JW Whittaker (498cc Matchless) treated the hill as though it were a main road. At the top of the hill the route followed a hard track for a short distance and then turned sharply to the right down a rather narrow track, the surface of which rapidly deteriorated. Soon the track began to descend sharply, and the surface was thick mud. On the right-hand side was a nasty drop, and many people later owned up to using a precautionary foot here to steady the model. At the bottom the track was even more slimy, and there were three deep water-splashes to be crossed. After this nastiness the ascent of Pin Hill seemed child's play, and some riders, like 2nd-Lieut W. Darkin (490cc Norton), were so eager that they failed to stop at

all at the stop-and-restart test. This test was timed: competitors had to travel as quickly as possible from the restart, which was held on a steep corner, to the top of the hill. Among the first 100 competitors, JF Hayes (1,172cc Morgan) and LC Dagwell (598cc Panther sc) made the best times. Very few men had difficulty on the re-start, but some failed to stop with the front wheel over the line. Easily the best of those seen was VM Beach (598cc Sunbeam), who stopped correctly and got away again without the slightest trace of wheelspin. Only a few miles farther on was another stop-and-restart test. This time the actual restart was timed, competitors being given three seconds in which to get away. The test was held on Harcombe Hill, the surface of which was firm and good...Some riders of small machines had to use their clutches a good deal on the re-start, and Signalman EW Barry (490cc Norton) had to lift and drop his clutch frequently to help his engine. No 13, J Bassnett (247cc Levis), who arrived among the late solos, was in such a hurry to get, away that he lifted his front wheel and was generally hectic. Water was running down Woodhaynes, the next hill, at the rate of many gallons an hour, with the result that competitors had only to keep their wheels to the path of one or other of the rivulets to have a perfectly hard, safe surface...Sigmn HL Overton managed the climb all right, but was very w-w-wob-wobbly. Lance-Cpl TF Light (490cc Norton) was one of the neater of the Army riders. In the case of Sigmn DEL Clements (490cc Norton), the grass at the upper bend exerted its usual fascination, but by good fortune and good handling he managed to get safely back on the hard going. Sigmn CJ Dennis (498cc Triumph) was not so lucky. He got on the grass, and after some wheelspin the engine spat back and he stopped. S. W. Pergunas (348cc Triumph) neatly wormed his way upwards. TC Munday (497cc Ariel sc) was going well when his gear slipped out; had he realised what had happened he would have had plenty of time to reengage it and continue non-stop. Then WH Maddison (596cc Scott sc) snarled up in easy fashion...The last hill of the trial was Meerhay, a longish straight hill near Beaminster, and riders with clean sheets were rubbing their hands gleefully at the prospect of a 'Premier' and a 'Simms Special Award'. But when they saw the re-starting point on the hill their spirits fell, because the surface was loose, stony mud. It looked much worse than it was, however, and even the majority of the sidecars got away without trouble. The hill itself was dead easy for solos, for there was a hard path all the way up, and for sidecars there was ample wheelgrip. One of the very unfortunate ones was R0 Wiltshire (997cc Ariel sc); soon after he restarted a large stone jammed up between his front wheel and tyre. By sheer engine power the outfit carried on for some 30 yards with the front wheel locked before crabbing into the bank. Before the stone could be removed the tyre had to be deflated. Sergt MAG Newberry (490cc Norton) had his feet at the ready for several yards after the restart, but eventually he put them on the rests. The front and rear springing of GC Goffe's Vincent-HRD could have had very little damping because both front and rear forks were working fully as he made a slow climb standing on the rests...RW Praill (1,208cc Harley Davidson sc) simply rocketed up the hill at speed. JG Tibbitts (497cc Triumph sc) had to fight hard to conquer a good deal of

wheelspin, and W. Hamilton-Griffiths (730cc BMW sc), after a lot of trouble getting away, slewed about wildly on the hill...Fast climbs were made by HW Croucher (598cc Panther sc) and AC Reynolds (497cc Triumph sc). JFS Polden (497cc Triumph sc), after a good climb of the hill, had trouble with his clutch and at the top of the hill had to do some rapid thinking in order to get the outfit to the finish. But only first-class roads remained, and at the Grand Hotel in Bournemouth, where tired men removed mudstained garments, the general comment seemed to be that so far as the hills were concerned it had been one of the easiest 'Exeters' ever—in spite of the standard tyres."



"THE RESULT SHEET of the Exeter Trial makes interesting—and surprising—read-ing. For instance, it reveals that the Army well and truly beat the civilians in the team competition, claiming five of the first six places. The winning team represented a Territorial unit—the 235th Anti-Aircraft Battery RA (TA)—while second and third places went to Regular Army teams; then comes another Territorial team, followed by the first civilian team. Another interesting point that shows the comparative easiness of the trial—in spite of the fact that competition tyres were banned—is that of the 161 finishers in the motor cycle classes no fewer than 95 gained premier awards. In addition 33 gained silver medals and 15 bronze medals. Seventeen had no award, one award is held over, and there were 23 retirements. The special Simms Hill award was claimed by 51 motor cycle competitors. TEAM AWARDS. 1, 235th AA Battery R.A. (T.A): Gnr RF Andrews (497cc Ariel), Gnr DH Street (497cc Triumph), Gnr AJ Newby (349cc 'Triumph). 2, 4th Bn Royal Tank Corps: L/Sergt JT Dalby (499cc BSA), Pte RJ Scovell (499cc BSA), Pte C Beetham (490cc Norton). 3, 10th Royal Hussars: SBM TD Davis (490cc Norton), Sergt SH Archer (490cc Norton), Corpl RG George (490cc Norton). 4, City of London Signals (TA): Sigmn EJ Angell (490cc Norton), Sigmn WA Barry (497cc Triumph), Sigmn DEL Clements (490cc Norton). 5, Team No 6: AE Hare (997cc Ariel), F Gooding (348cc Ariel), LG Atkins (346cc New Imperial). 6: 22-56th Field Bt RA: Bdr F Cockerill (490cc Norton), Bdr P Isherwood (490cc Norton), Bdr AT French (490cc Norton). The 1938 MCC Team Championship was won by a team of sidecars: RW Praill (1,208cc Harley-Davidson sc), FW Stevenson (980cc Brough Superior sc), FW Osborne (498cc Coventry Eagle sc.). The only motor cycle member of the MCC to qualify for a Triple Award by winning premier awards in the Land's End, Edinburgh and Exeter trials is FW Stevenson (980cc Brough Superior sc)."

"AT THE EXETER TRIAL civilians, whether competing or spectating, were frankly shocked at the grotesquely unsuitable clothes in which the rank and file of Army motor cyclists were set to contest a winter trial by night and in bad weather. However, probably before

long there will be a new issue. The specification submitted to the Army tailors will doubtless, stipulate that the new bad-weather riding kit shall be: (a) Smart. (b) Durable. (c) Warm. (d) Drencherproof. (e) Untearable. (f) Inexpensive. And that is a specification which, I suggest, will not easily be filled."—Ixion

"HAVING READ THE LETTER from 'JRT' I feel that I must make some reply on behalf of the so-called 'soft' brigade. It may be that 'JRT' rides his machine only in fine weather; if so, there is some excuse for his non-appreciation of a windscreen. However, I have to ride my machine in all varieties of weather, and I can assure 'JR' that I have failed to find anything funny in trying to make headway against a gale with rain like needles in my face, especially at night time. Thanks to the articles in *The Motor Cycle* I purchased a windscreen which had satisfied 'Torrens', and I can now ride anywhere in any weather at any speed without sitting in a pool of water and, what is more important, I can see where I am going. In closing, I would like to point out that, as a rule, what The Motor Cycle advocates today becomes reality to-morrow—in spite of opposition from the so called 'tough guys'.

## A Woolfenden, Huddersfield."

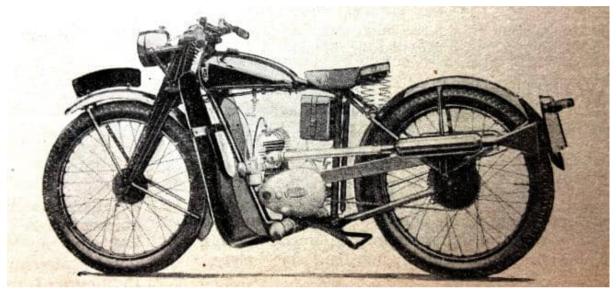
BLUE 'UN READERS recorded their running costs; these fuel consumption figures make interesting reading: 1937 BSA Empire Star, 80mpg; 1938 BSA Empire Star, 84mpg;1937 349cc Velocette MAC, 85.7mpg; 1938 498cc Scott Flying Squirrel, 62.5mpg; 1937 500cc Sunbeam Lion, 80mpg; 1938 Triumph Speed Twin, 70.3mpg; 499cc Rudge Special outfit, 57mpg; 1936 Panther M100 outfit, 53mpg; 1934 Panther M100 outfit, 68mpg; 1938 600cc sidevalve Ariel, 80mpg; 1937 1,140mpg Royal Enfield outfit, 48mpg; 1938 150cc ohv New Imperial, 105mpg; 1933 350cc Levis, 89.6mpg; 1936 Francis-Barnett Cruiser, 90mpg; 1935 BSA ohv 250, 90mpg; 1934 990cc Matchless V-twin outfit, 50.24mpg; 1937 500cc Ariel Red Hunter outfit, 54mpg; 1938 500cc Rudge Special, 84mpg; 1937 250cc Red Panther, 108mpg; 1936 BSA ohv 250, 88mpg; 1938 New Imperial 350cc 46D, 81.5mpg; 1938 Triumph 350cc Tiger 80, 87mpg; 1936 Velocette 250cc MOV, 116mpg; 1934 Scott 596cc outfit, 40mpg."

"EIGHTEEN MOTOR CYCLE rallies were held in Italy last year, attracting 11,300 clubmen."

BMW PRODUCED its 100,000th motor cycle. More than 80% of the new motor cycles registered in Germany were under 250cc.

A NEW LIGHTWEIGHT which is to be sold at the extremely reasonable price of £21 10s has been introduced by Pride and Clarke, 158, Stockwell Road, London, SW9 It is known as the P and C Cub, and is powered by the well-known Villiers 125cc engine-gear unit. This unit is mounted vertically in a simple loop frame which is used in conjunction with pressed-steel forks. Dunlop tyres of 2.75in section are fitted, and there is a comfortable Lycett saddle. Weather protection is provided by wide legshields, which are anchored to

the front down tube and brought back at the bottom as far as the footrests The fuel tank, which is of pleasing shape, holds  $1\frac{1}{2}$  gallons of petroil. It is finished in black, as are all the cycle parts of the machine. The chromium-plated exhaust pipes run straight back from the engine ports to black tubular silencers which are fitted with fishtails. Normal controls are fitted, and they include an off-side brake pedal and lever throttle control. Equipment, which is included in the price of £21 0s, consists of Villiers direct lighting, a tyre inflator, a tool kit in a metal case mounted high up on the saddle down tube, and a bulb horn."



"The new P and C Cub has a 125cc Villiers engine-gear unit and an excellent specification—yet the price is only £21 10s."

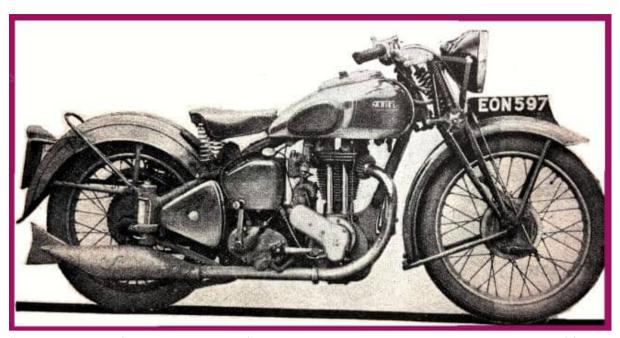
"WITH ALL THE UNIFORMS and the Army trucks carrying fuel and oil encountered on the route the Exeter Trial was strangely reminiscent of the International Six Days Trials staged by Germany. What was interesting was the wonderful improvement in the standard of riding by the Army men. There is no doubt about it, the entry of the Army into trials has made a world of difference in this direction. Many of the men are rapidly coming into the 'star' class."

"WELL, HARDLY IS THERE news of Joe Craig's resignation from Nortons than along comes an announcement of his entering the service of another famous firm. Joe is not to leave the motor cycle world, thank goodness. Neither the aircraft nor the automobile industry is to claim him. Instead, on February 1st he will take up his duties with BSAs as Development Engineer—all very, very interesting."

## 7/6497ccRed Hunter Ariel will rear springing

"ONE OF THE OUTSTANDING features of the last Earls Court Show was the number of manufacturers who were showing spring frames for the first time. Among these was the

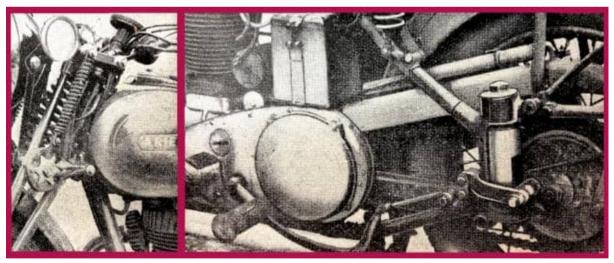
Ariel Company, whose design attracted a great deal of attention. The suspension is of the plunger type situated at the rear fork ends, but the design incorporates a link action which ensures that the rear chain tension remains constant. Recently, the latest edition of the famous 500cc Red Hunter with rear suspension has been submitted to The Motor Cycle for road test. Throughout a very severe test under bad conditions the model behaved splendidly. On first acquaintance with the Ariel the steering seems to be unusual. There is no feel of the rear wheel as with a rigid-frame machine, with the result that there is an impression that the steering is not positive. In a very few miles, however, the rider becomes accustomed to the springing and this feeling rapidly disappears. Thanks to the excellent suspension the machine inspires confidence in the rider when conditions are bad. As a result of the road-holding, greasy roads could be ridden over at higher speeds than would have been safe with a rigid-frame machine. For town work the steering was at its best with the fork dampers slackened right off. On the open road some damping of the front forks is required, but much less than is normal with an unsprung machine. It is probably on the open road that the springing of the Ariel is most appreciated. Whereas in the past on such models the cruising speed had been limited by the road surface, with this new Ariel the cruising speed is limited solely by one's feelings for the engine. Speeds of 60, 70 and even 80mph can be reached and maintained in absolute comfort and safety, and it was found that on long runs a cruising speed of between 60 and 70mph was perfectly safe. These speeds may seem dangerously high to owners of unsprung machines, but with the Ariel only the speedometer gives the clue to the speed that is being maintained, for at 60mph and over on straight roads there is little, apart from the wind, of the sensation usually experienced. However, it is not only on straight roads that high speed can be used, for the Ariel corners extremely well. The rear wheel holds the ground, with the result that the machine is very stable and can be leant well over with every confidence. The limit here is determined by the central stand, which can be criticised for being somewhat low for really fast cornering. The steering was light at all times and only at really high cruising speeds was a 'bite' of steering damper used, and then purely as a precautionary measure, for the Ariel never showed any tendency to wobble, even at its maximum. Cornering was effortless whether at high or low speeds and the steering was sufficiently light to permit the machine to be ridden feet-up at less than a walking pace. Rear suspension obviously improves the braking of a machine, and this was particularly noticeable with the Ariel. On wet roads, instead of the rear brake being of very little use, it was found that the brake could be used quite hard without the rear wheel locking. Both brakes were extremely powerful and on wet or dry roads they could be used hard with safety. During the performance tests the braking figures were taken on damp concrete and in the circumstances the figure of 36ft stopping distance from 30mph is very good indeed.



"Although the Ariel bears ample evidence of hard use under severe weather conditions, there are no oil leaks. The rear suspension does not in any way spoil the good proportions of the machine."

A criticism of the rear brake pedal, which applies to many machines, is that it has no adjustment for position. This criticism is almost the only one that can be made of the riding position or controls. The handlebar shape is excellent and the controls are easy to use. There is a full adjustment for the footrests and gear-change pedal, and the relation of saddle, handlebars and footrests is good. For a heavy man stronger saddle springs needed specifying, for the saddle bottomed on bad roads. The controls were all very pleasant to use. The clutch was light and absolutely free from drag, and bottom gear could be engaged without noise at all times. The gear change was always positive, although rather slow in the upward direction, and the throttle and front brake controls have a good relationship for comfortable use. As usual, the Ariel rubber mounting of the handlebars proved most effective. In the discussion of the spring frame, high cruising speeds have been mentioned. Obviously these would be impossible without a very good engine, but the Red Hunter engine is well up to the work required. The motor in the machine tested definitely had 'punch' and yet it was not at all harsh. When cruising at 60mph the machine would accelerate briskly up to 70mph at a touch of the throttle, and the acceleration throughout the range was particularly good. The acceleration from a standing start is outstanding, and the speed of 75mph which was attained at the end of the 'quarter' is a very good figure even for a super-sports 500. When the performance figures were taken, Brook-lands was not available for mean maximum speeds. However, with the rider lying down on the tank the speedometer would reach and hold 90mph in top gear (4.7 to 1) and frequently on the open road the speedometer needle was pushed past the 80mph mark with the rider sitting normally in the saddle. The speedometer was checked and found accurate at 50mph, and during the test the Ariel covered a timed

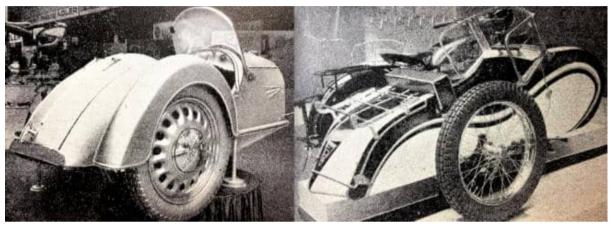
quarter-mile at over 80mph in spite of an inadequate run. The third gear maximum of 80mph by speedometer was held comfortably. In spite of its very high performance the Ariel is a gentlemanly machine. On an ethylised fuel—on No 1 petrol the engine pinked rather easily—the machine could be throttled down to 14mph in top gear with the ignition fully retarded, and provided that the ignition control was used the machine would accelerate well between 20 and 30mph. In 30mph limits it was found desirable when using top gear to have the ignition slightly retarded to avoid any harshness. Slow running was in keeping with the general characteristics of the engine. With the ignition retarded the tick-over was slow and positive—a notable feature of the Red Hunter engine. Starting was as a gentlemanly procedure at all times. Even when cold the engine would start on a light throttle opening with a retarded ignition setting, and powerful kicks were unnecessary. The totally enclosed valve gear was commendably silent, but under certain conditions a little, piston slap could be heard. The exhaust note was very subdued—at low speeds it proved only a whisper and at high revs it never rose above a pleasant burble. Oil consumption throughout the test was negligible, and the whole unit kept absolutely free from oil leaks, although the machine was severely thrashed for hundreds of miles. Another point is that there was no blowing from the oil tank. As regards petrol consumption, at a maintained speed of 40mph this worked out at a fraction under 90mpg. To sum up, the Red Hunter Ariel with rear springing combines a high performance with a remarkable degree of comfort. It is easy to start, has a very quiet exhaust, and is very well braked."



"Check springs on the forks are a standard feature of the Red Hunter. They give a pleasant fork action which, combined with the rear springing and the rubber – mounted handle-bars, provides an exceptional degree of comfort." (Right) "This view of the near side of the Ariel clearly shows the construction of the rear springing. The central stand and new brake pedal mounting will also be noticed."

"THE BRUSSELS SHOW again lives up to its reputation for revealing both novelty and interest. The display includes machines ranging from tiny veto-moteurs to massive 1,000cc flat-twins. Spring frames and shaft drive are in evidence. In addition, there are

several examples of sidecars that for sheer luxury and beauty of line are probably the equal of any produced. An outstanding sidecar exhibit is the Novi—a newcomer to the Continental market. The pressed-steel body has attractive sports-car lines, and this motif is continued even in the case of the wheel, which is of pressed-steel construction with a large hub cap. A single-tube chassis with a girder-type transverse rear member is employed and the suspension is by two rearwardly placed tension springs, each with its own friction damper. Another interesting sidecar on view is the Fox.



"A fine example of Continental sidecar design—the new Novi sidecar. it has 'sports-car' lines throughout, a feature that extends to the pressed-steel wheel." (Right) "A luxury model in every sense of the word, the Fox sidecar has attractive flowing lines. In this picture thye mudguard is removed to show the independently sprung wheel."

The body has typical sweeping Continental lines and with its deep sprung cushions and three-piece windscreen represents real luxury. The chassis is of the rectangular tubular type and the body is attached to long leaf springs anchored mid-way on the side members. Independent suspension of the wheel is arranged by a pivoting lug attached to a short ¼-elliptic spring. Features of the FBS sidecar are an immensely strong chassis and tension springing. Models are shown with disc as well as wire wheels. Here again smartness combined with comfort is a feature of the body design. Among the motor cycle exhibits the big Ready range is prominent. These are orthodox machines with Villiers engines in 125, 200 and 350cc sizes, and with JAP engines of 350 and 500cc in both side- and overhead-valve forms. Burman four-speed gear boxes are employed on some of the models. One 500cc model on view has plunger-type rear springing, similar in many respects to the British type, except that the springs are exposed. Another interesting feature of the larger machines is a rubber damper on the front forks; this consists of a block of rubber fixed to a plate on the top of the fork members. A spindle passes through this rubber and moves



"The new Gillet lightweight has a 125cc two-stroke engine in unit with a three-speed gear box. This is the two-port sports model." (Right) The latest addition to the Sarolea range is a 1,000cc unit-construction transverse twin. It is shown here in military form attached to a machine-gun equipped sidecar."

relative to it as a result of cranked top links. In addition to this rubber damper there are normal friction-type dampers. Sarolea's high-spot is a new 1,000cc unit-construction transverse twin. It is shown in military form with a machine-gun-equipped sidecar attached. In many ways reminiscent of the BMW, it is a massively built machine with double barrel-spring forks and a duplex cradle frame constructed partly of tubes and partly of girders. Another unit-construction transverse twin to attract attention is the 1,000cc FN that was introduced last year. It has an extremely compact side-valve engine with aluminium cylinder heads. A military model is shown equipped with a large external air cleaner and a specially braced frame. This firm specialises in unitconstruction, and the system is applied to all their single-cylinder models. Gillet shows a new 125cc two-stroke of exceptionally clean design. The engine is built in one with a three-speed gear box and the unit is inclined forwards in a neat loop frame. Touring and sports models are available; in the former case a single-port engine, measuring 56x50mm., is employed, while in the latter the engine measures 52x60mm and is of the two-port type. Other features include a detachable aluminium cylinder head and flywheel ignition. Several examples of the neat German Saxonette two-stroke attachment for bicycles are on view. It has a 60cc engine and drives the rear wheel through a reduction gear of 17 to 1. A flywheel magneto is fitted, and there is direct electric lighting."



L-R: "Plunger-type rear springing with exposed compression springs as fitted to the

500cc Ready." "In addition to normal-type shock absorbers some of the Ready models have a rubber damping device fitted to the front forks." "The neat Saxonette motor attachment for bicycles, which incorporates in one unit a two-stroke engine, carburettor, flywheel magneto and silencer."

"IT IS RATHER A HABIT in these days for people to make statements and end by asking: 'Is it a record?' However, are there even half a dozen clubs with a membership of over 100 who can claim that at their annual dinner and prize presentation every single one of a long list of award winners was there to receive his prize? This happened at the annual dinner of the Mont' Christie MCC, which was held at the First Avenue Hotel, London, WC1, last Thursday. It can be said to be typical of the club. Harold Daniell remarked after the dinner that he had never come across a club like it. He is right: this crowd of enthusiasts is more like a huge happy family than anything else. It is a big social club as well as a sporting organisation. How it thrives can be gathered from the fact that although this was only the fifth annual dinner there were over 150 present."



"A glimpse of the annual dinner of the Mont' Christie MCC, which, although only the fifth, was attended by over 150 members and friends."

"THERE WAS THE USUAL merry party at the Motordrome, Greet, Birmingham, when the Birmingham MCC held their annual prize distribution last Saturday night. In charge of the proceedings was Mr Harold Simms, the popular president, and many prominent riders turned up to support him and to collect their awards. A typical telegram came from Allan Jefferies, the reigning British expert, and it came from Dublin of all places, pointing out that the Club had chosen the wrong night, and that he couldn't possibly swim all that distance in the time. Among the 'personalities' present were Bert Perrigo, seriously considering a ride in the forthcoming 'Colmore', Fred Povey, George Holdsworth, who took away a wonderful array of pots—not all his own, however—Harold Tozer, Club Captain Vic Brittain and Jack Amott."

"I WAS MOST PLEASED to see 'Nitor' urging motor cyclists themselves to reply to criticisms of motor cycling in the local Press. Motor cyclists and motor cycle dealers up and down the country should be the first to reply to criticism of this kind, and, as 'Nitor' points out, local defence of motor cycling interests carries much greater weight with local editors than replies from the Manufacturers' Union. Too often motor cyclists and motor cycle dealers send me Press cuttings of criticisms days after they have appeared in the local Press, when replies, by reason of their delay, lose half their value as 'news'. Some time ago I circulated a series of standard paragraphs to a large number of motor cycle dealers and to motor cycle clubs, through the ACU, dealing with safe design, pillion riding, accident statistics, and the like. I shall be pleased to send helpful suggestions of this character to any of your readers who care to communicate direct with me. In conclusion, may I urge every motor cycle club to appoint a local Press secretary, whose task it would be to follow up and reply to local criticisms?

HR Watling, Director, The British Cycle and Motor Cycle Manufacturers and Traders Union, Coventry."

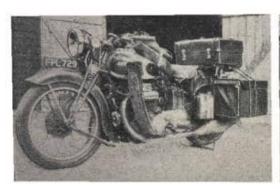
"NITOR IS RIGHT when he says that motor cyclists should personally answer any criticism of motor cycling that they see in their local paper. Motor cycles, like dance bands and crooners, are considered by editors to be safe subjects for criticism because those who are capable of replying in their defence seldom bother to do so. If, however, every derogatory remark was answered by a flood of letters from local riders the editor could realise that he is more likely to decrease than increase his circulation by adopting an anti-motor cycling attitude, and the attacks would cease rapidly.

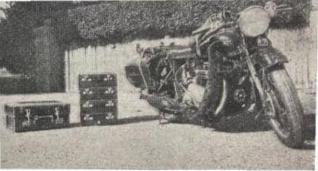
Leonard Black, Press Secretory, London MC Touring Club, London, SW7."

"IN VIEW OF THE CORRESPONDENCE that appears from time to time on the subject of carrying luggage on a solo, perhaps the enclosed snaps of my 1,000cc Ariel equipped for this purpose might be of interest. The disposition of luggage as shown completely solves the problem where no pillion rider is carried. The arrangement consists of two double-sized pannier bags, each containing two small suitcases, made up for me by Messrs Godfrey's, and across the top of the rear mudguard a luggage carrier taken off a Steib sidecar. This latter accommodates, a large expanding suitcase. Suitable supporting brackets were made up for the panniers, though the greater part of the road shocks are taken by two stout leather snaps which fasten to the underside of the panniers and pass round and over the luggage carrier and buckle together over the top. Thus equipped, last September the 'Squariel' and I started for Lourdes in the Pyrenees, a distance of nearly 800 miles from Dieppe. It rained nearly the whole way; nevertheless, a cruising speed of between 50 and 60mph was maintained for most of the time, and the luggage never shifted once. On the return journey a fortnight later the weather was fine, and a speed of between 60 and 75mph was held over most of the roads. Despite the extra weight over and about the tail, the steering was not adversely affected up to 70mph, and between 70 and 80mph it even seemed to be greatly

improved. Over 80, however, a slight snaking sensation was noticed, and this rapidly became worse as the speed increased. This, however, could probably have been rectified by increasing the pressure in the rear tyre, had higher speeds been desired, Reverting to another subject—how about 'Pullets' as a name for the new motorised bicycles? I think this would suggest power in miniature, which is what seems to be wanted.

H Trevor Battye, Gt Missenden, Bucks."





"How Mr H Trevor Battye solved the luggage-carrying problem. The left-hand picture shows the Ariel Four with the Suitcases strapped in position. On the right, the respective sizes of the five cases are revealed."

"I SHOULD LIKE TO ask if any of your readers remember the twin-cylinder Panthette that was on the market about 10 or 12 years ago. I recently purchased one, and have wondered why this great little bike did not become more popular. For easy starting, smoothness, acceleration, roadholding, mpg, and many other good features, I have not ridden anything better. We in New Zealand are very envious when we read the prices of motor cycles in England; we have to pay almost double for our machines. If we could buy a 500cc ohv for £60 or £70 there would be a great increase in motor cycle sales, but there doesn't seem to be any chance of that for a long time yet. British bikes have the monopoly now, and only occasionally are old Harleys and Indians seen on the road. Also, at all grass-track meetings Rudges, Velocettes, Ariels, AJSs and JAP-engined bikes form the majority of the entries. Unfortunately, the meetings are few and for between, and reading of the many events taking place all over England also gives us some cause for envy. However, we are very keen here in New Zealand, and we follow the racing at Brooklands and the international road-racing very closely. Stanley Woods, Freddy Frith, etc, are very familiar names to us, and we certainly thank The Motor Cycle for all the information we get from it.

NF Walker, Otaki, New Zealand."

"ARGUMENTS REGARDING THE various types of motor bike are always very bitter when sailors collect in the mess. Many of us have our own mounts, and after a day's strenuous exercising off Portland it is a thrill beyond compare to get the bus out of the local garage and enjoy the soothing effect produced by burbling along beautiful Dorset

lanes. What is the Navy's opinion of the sport? 'Just great!' The bike has to be used for evening runs and, as in my case, for week-end leave. The 140-mile run to my home in Woolwich is looked forward to the whole week. Checking over the model—filling the tank and seeing to tyre pressures, etc—is a regular Thursday night job. Friday night sees a score of us from this flotilla forming a regular procession through Weymouth and on to the London road. In spite of crises, foreign cruises and patrols, Jack is always glad to get back aboard his "Beam" or 'Beesa' and share the joys of the open road with that great gang of fellows, motor cyclists.

## 'OK Supreme', Portland."

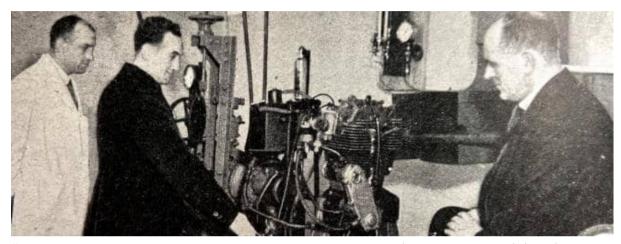
"THE LEINSTER CLUB'S Patland Cup Trial provided another win for Allan Jefferies (349cc Triumph). He was runner-up to Stanley Woods last year, and won the 1937 event. It was unfortunate that he and Woods could not renew their duel this year, but the Irishman did not feel his injured hand sufficiently well mended to chance risking it in so strenuous an event. Owing to difficulties with landowners the promoters had had to find an entirely new course for their classic event this year. They succeeded in finding one that would maintain the Patland tradition all right, but its potentialities had not been too accurately gauged. It was appreciated before the start that, owing to a stiff climb up the Three Rock Mountain, difficult moorland going, time-losing sections through some disused sandpits and only a few yards of road per 6½-mile lap, it would prove difficult, if not impossible, for everyone to finish before dark with a normal time limit in operation, and the stewards decided to cut the number of laps from four to three. The result showed the wisdom of the decision. There were 38 starters, of whom only 14 finished within a 40min time limit (representing a 10mph average), and a further ten, including CH Manders (whose Excelsior broke a chain), were too late to be included in the results. The best time was made by Allan Jefferies, who averaged just over 12mph, but the young Dublin University rider, Peter Gill, riding a borrowed 348cc BSA, was only 2½min slower, a particularly meritorious performance. Next were Yorkshireman Dick Wilkinson (348cc Panther) and the Irish trials champion and International Six Days rider, Aubrey Archer (497cc Ariel), both 18min late. Archer was the only 500cc machine rider to get into the fastest half-dozen, the others all being on 350cc machines."



"AHL Archer (497cc Ariel) making a good climb through the rough of Three Rock Mountains. He made the best performance in the 500cc class."

"IN THE RACING GAME few firms have done more or gained a more enviable reputation than the Velocette concern. For years they have been producing machines which, on all European courses, have thrilled the watching crowds. Their successes have been numerous, but for a considerable time the Tourist Trophy eluded them. Although this is true, as a bald statement it gives an entirely false impression and might lead those with in-complete knowledge to believe that Velocette machines have given a poor account of themselves. Actually, over the past three years, in 800 miles of racing in the Senior TT there has been a total difference of only 47 seconds between the winners and Velocettes—as long as it would take you to walk 100 yards! There cannot be very much wrong with a machine which can show such excellent lap times over the difficult Isle of Man course. Nevertheless, Veloce are not satisfied, and they feel that the time has come when it is necessary for them to produce something different if they are to continue to hold their own with the remainder of the world's best. They do not take the view that new regulations should be devised, restricting the type of machine which should be raced...In the Velocette factory at the moment a machine is being evolved in accordance with modern racing requirements. The firm is determined to do its utmost to advance motor cycle design, to uphold the prestige of the British industry throughout the world, to keep abreast of subsidised foreign efforts and to blunt the thin end of the wedge by means of which the foreigner is attempting to undermine the popularity of the British motor cycle. The machine that is being worked upon is a supercharged twin designed to eliminate all the inherent defects and disadvantages that attach to flattwins, either transverse or otherwise, V-twins, or multis having a greater number of cylinders. This machine is being considered entirely from the racing angle, it is being built solely for racing, and no detail which is thought necessary in a successful racing machine will be sacrificed on the grounds that its exclusion would, in the future, render it simpler to make a production job. At the same time, preliminary development has

brought to light the fact that the design possesses many features which would be highly desirable in a touring production, and it seems likely that development will not cease with the completion of the racing machine. From stem to stern this is a new design; the makers have started with a clear piece of paper; they have endeavoured to empty their minds of everything they have done in the past and to bring completely fresh ideas into being. Every part, with the exception of such items as electrical equipment, carburettor, tyres, and so on, is being made in the Velocette factory. Engine, gear box, transmission, and frame are to be of Velocette design and manufacture."



"Three men on whom the Velocette venture rests: left to right are Mr HJ Willis, Director of Veloce, Stanley Woods, who is to ride the machine, and Mr Percy Goodman, the Velocette managing director. They are seen in the new engine test shop that was opened last year. The engine on the bench is one of the 1938 TT models."

"OFFICIAL EXPORT FIGURES just issued show that £1,130,374 worth of British motor cycles, parts and accessories were purchased abroad during 1938. The value of the actual machines exported was £811,003. Of this total, Australia purchased £261,705; Union of South Africa, £61,294; other British countries, £153,324; the Netherlands, £39,152; and other foreign countries, £295,528."

"OFFICIAL REGISTRATION FIGURES show that 2,560 motor cycles were registered for the first tune in November 1938, compared with 2,226 in November 1937. Machines in the under 150cc class showed the biggest increase with a total of 402 compared with 153 in the corresponding month a year ago. Registrations in other classes were: 150-250cc, 703; over 250cc, 1,179; passenger machines, 276."

"TWENTY YEARS AGO there were 119,000 motor cycles in Great Britain; the figure in these days is nearly half a million."

"PRODUCTION of New Imperial motor cycles has now been resumed, and it is stated that, except for the new Grand Prix models, orders can be accepted for immediate delivery. These two GP models are not being put into production for the time being. It will be recalled that Mr Jack Sangster recently took over New Imperial Motors as a going concern."

"NEARLY A QUARTER of a million people are directly employed in the British motor manufacturing industry."

"RECKLESS DRIVERS on the North Circular Road on February 5th may find themselves televised during an interview with the police."

## An issue of the Blue 'Un devoted to attracting converts to motor cycling included some words of encouragement from...who else?

"HOW I ENVY THOSE many lads and lasses who will make the motor cycling plunge this coming season! Even my aged marrowbones still tingle when I recall the thrills of my first purchase and my first rides, long years ago. I am still uncertain wherein rests the real fascination of motor cycling, and why it is so distinct from motoring on four wheels, even if the four wheels support some super-sports two-seater. The sensation is, of course, compound. It is built up of fun, health and utility. Of the trio, I think perhaps that the fun has always bulked largest with me—the zest of novelty, of getting away from familiar surroundings, of speed, of pitting one's wits against machinery (pretty unreliable machinery in my novitiate!), of zooming uphill, of getting to know Britain from end to end, of new companions, of competition, of defeating and enduring slime, fog, ice, gales, darkness and storms. And with all this goes that delightful sense of physical fitness—only the motor cyclist ever learns the peculiar bodily pleasure of tissues supercharged with oxygen, muscles invigorated without being wearied, a brain refreshed by forcible detachment from the daily worries; he and the camper form a class aloof in this respect. Finally, there is utility. I suppose I have motor cycled over half a million miles at an average cost of well under a penny per mile; by no other means could I have travelled so far and so cheaply in one short life. It sure is a great game!"— Ixion

"THIS PARAGRAPH IS ADDRESSED to those aspirants who can afford a miniature, listed at perhaps a trifle under £20. They should understand that motor cycling was established by pioneers who for long years never rode anything like so good as the 1939 power cycle, and who still found the sport a million times worth while. We had no gears; no clutches; tiny saddles as hard as steel; narrow and very puncturesome tyres; rigid forks; and the flabbiest brakes, while every single item of the specification was as unreliable as a pseudo-engineering job could be. Some of us had to order our petrol weeks ahead from London and wangle hard at times to get the railway to bring such fiery stuff to our doors. When we struck trouble there was no repairer available; we could go to the local cycle repairer, but he knew rather less than we did ourselves. We started our machines by hopping on one foot and placing the other foot on a back spindle step, while a compression tap spat fiercely. We began to pedal hard up every grade worse than 1 in 16. We did not know what a hundred-mile run without trouble was like. But we loved it all. Any 1939 miniature power cycle would have made us look silly and die of

envy. And we paid anything from £45 upwards for those packets of trouble, and deemed it money well spent!"—Ixion

The same issue included a list of every bike on the British market in the various price brackets, starting with what Ixion dubbed the miniatures and ending with George Brough's Dream bike:

"UNDER £20: HEC power-cycle, 80cc two-stroke, £17 17s. Raynal, 98cc two-stroke (Popular), £17 17s. Cyc-Auto, 98cc two-stroke (Gent's), £17 17s. Cyc-Auto, 98cc two-stroke (Open Frame), £17 17s. Coventry Eagle, 98cc two-stroke (Auto-Ette Q12), £17 17s. Dayton, 98cc two-stroke (Motorised Bicycle), £17 17s. Norman, 98cc two-stroke (Motobyk), £17 17s. Excelsior, 98cc two-stroke (Autobyk), £18 18s. Francis-Barnett, 98cc two-stroke (Powerbike), £18 18s. Raynal, 98cc two-stroke (de luxe), £18 18s. Cyc-Auto, 98cc two-stroke (Gent's de luxe), £18 18s. Cyc-Auto, 98cc two-stroke (Ladies' de luxe, open frame), £18 18s. James, 98cc two-stroke (K18), £18 18s."

"£120 AND OVER: Excelsior, 350cc ohc (JR12 Manxman), £120 (no speedo; rev counter). Brough Superior, 990 sv Twin (SS80 de Luxe), £120. BMW, 494cc ohv Twin (R51), £123. BMW, 745cc sv Twin (R71), £123. Harley-Davidson, 750cc sv Twin (WL), £125. Excelsior, 350cc ohc (JRS12 Manxman), £125 (no speedo; rev counter). Indian, 1,265cc ioe Four (Four), £125. Morgan three-wheeler, 990cc ohv Twin (Super Sports), £126. Vincent-HRD, 998cc ohv Twin (Rapide), £128. Brough Superior, 1,100cc sv Twin (11.50), £130. Harley-Davidson, 1,200cc sv Twin (US), £135. BMW, 600cc sv Twin (R66), £135. Morgan three-wheeler, 990cc ohv water-cooled Twin (Super Sports), £136 10s. Morgan three-wheeler, 1,172cc sv Four (F Super), £136 10s. Harley-Davidson, 1,300cc sv Twin (UHS), £140. Harley-Davidson, 1,000cc ohv Twin (EL), £147. Brough Superior, 990cc ohv Twin (SS100), £155. Brough Superior, 996cc ohv Four (Dream), £185."

"I WONDER HOW LONG it will be before the British motor cycle industry is on a basis of equality with the foreign manufacturers of motorised bicycles. I have just been looking through the figures for imports into various overseas countries. It must be lovely having a tax free, insurance-free, driving-test-free home market for power cycles and thus be able to read big production figures and get down to an export price your competitors cannot approach. Little has been vouchsafed as to the lines of the discussion the Manufacturers' Union had with the Minister of Transport last week except that motorised bicycles and overseas trade were under consideration. What is needed, of course, is that motorised bicycles are treated as if they were ordinary bicycles. When riding power cycles I have often been passed by bicycles; can anyone honestly say that these machines, which in the majority of cases cannot approach the downhill speed of bicycles, and are considerably more controllable, are more liable to damage third parties? Of course, he can't. 'Ah, yes!' some may say, 'but at least they must be taxed—the Exchequer needs the money.' This reasoning is unsound. The number of power cycles on the roads today is minute; the type is a new one. The Exchequer would lose

only a tiny sum by freeing these machines from tax. Encourage the power cycle by making it tax-, test- and insurance-free and the number will increase by leaps and bounds, each consuming petrol and benefiting the country's finances to the extent of 9d a gallon, thereby providing a sum much greater than if there were direct taxation. There is no argument about it; the country has much to gain and nothing to lose."



"The milky way: A woman milk dealer at Pewsey in Wiltshire has ensured reliable and inexpensive transport by converting an old sidecar into a milk float."

"FIFTEEN MILES OF ROAD in Essex and Leicestershire now have a special type of glass kerb to aid night-driving. These kerbs have panels of white vitro-lite, a durable opaque glass for which excellent reflective qualities are claimed."

"SIXTY-FIVE-YEAR-OLD Mr Harry Wimpress has used a 150cc Francis-Barnett twostroke 400 miles a month since 1924 on his duties as Tunbridge Wells County Court bailiff. Mr. Wimpress covered an area of 160 square miles in Kent in all weathers. Now he has retired himself, but not his 150, which he says 'is still going strong'."

"FULL MARKS TO COVENTRY EAGLES! They have been in touch with the chief petrol and oil companies regarding the supply of petroil. In Germany there is no difficulty at all in obtaining petroil, in small quantities or big ones, and of the variety and strength one wants. Coventry Eagles have suggested to the oil companies that they can assist the users of petroil-lubricated machines by issuing garages with special containers at a

reasonable figure—means whereby garages can easily and quickly provide the required mixture. Something of the sort is definitely needed."

"THE RAC ROAD STAFF covered about 8,000,000 miles on patrol last year. On an average, each RAC patrol sidecar covers 30,000 miles a year. Their economical life is 100,000 miles. Last year, the RAC increased its number of vehicles by 22%."

"NEARLY 100,000 LIGHTWEIGHTS were sold in Germany in the first nine months of last year."

"I AM NOT IN AGREEMENT with those riders who boast that they are 'tough', and brave the elements without legshields, windscreen, etc, just because these accessories do not look 'sporty'. I ride a modern sports 500 all the year round, but I do not clap my hands just because the sports-type 'mudguards' allow me to become drenched with mud all the winter. No, Sir, a totally enclosed multi, with windscreen and legshields, would suit me, even if it were mass-produced with no mirror-finished works. But what does it matter what we want, the TT is still our dictator.

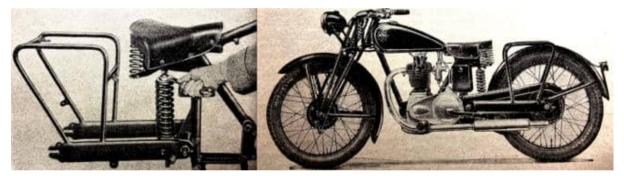
RD Gent, London, NW2."

"TWO BRITISH MOTOR CYCLE firms exhibited at the recent Milan show, BSA and Triumph, and both stands attracted large crowds. Among the Continental exhibits the Guzzi was prominent with a special 250cc model known as the Ardetta; this is on the lines of the machine that recently set up 18 new world's records. However, perhaps the real novelty of the show was the new unit-construction spring-frame Miller-Balsamo. It has a 196cc two-stroke engine with an alloy cylinder head, chrome-nickel cylinder and a pressed-steel connecting rod. Two rows of rollers are used for the big-end bearing, while the crankshaft runs on three roller bearings. The crankcase is cast integrally with a four-speed gear box, and the latter is provided with foot control. The clutch is of the multiple-disc type, running in oil. But the most outstanding feature of this remarkable machine is the frame. This consists of a one-piece pressing that not only incorporates the fuel tank and rear mudguard, but also provides total enclosure of the 'works'. Large side panels permit access to the engine, which, incidentally, is supported in a tubular cradle. The front mudguard consists of another pressing that encloses half the wheel, and it is extended upwards to form the head-lamp shell. Flared shields at the front of the frame direct a draught on to the engine. A simple form of rear-wheel springing is fitted, and this has a friction damper with external hand control. Another interesting machine on show was the Altea. This is a 196 c.c. unit-construction four-stroke with an unusual type of spring frame. There are no saddle tubes, but the chain stays are immensely strong and pivot on a bearing located at the base of the seat pillar. Immediately behind the seat pillar is a cross-member that supports a large-diameter compression spring, and this spring is attached at its upper end to the saddlesupporting lug. Tubular members welded to the chain stays form the carrier and

mudguard supports. Full ranges were shown by such well-known firms as Benelli, Gilera, DKW and BMW, but there were no surprises."



"A pressed-steel frame that completely encloses the 'works' is a feature of the remarkable Miller-Balsamo machine. Although only of 196cc capacity it has rear springing."

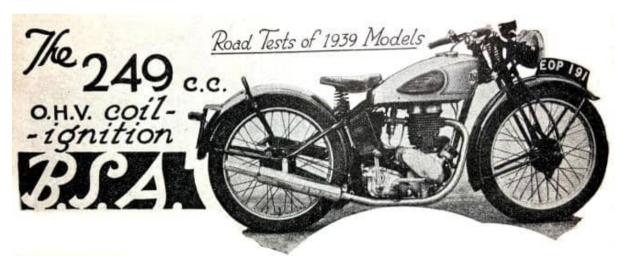


"A close-up of the Seiling spring frame, showing the single compression spring and the massive chain stays." (Right) "The 196cc unit-construction Altea has a neat, four-stroke engine and unusual springing system."

"THE EDITOR HAS RECEIVED the following letter from the managing director of the Excelsior Motor Company setting out the Excelsior views on the TT: 'We have this morning received the supplementary regulations and entry forms concerning the 1939 International TT Races, and I have immediately written to [ACU Secretary] Mr Loughborough informing him that we shall not be competing in any class of the 1939 TT. I have pointed out to him that this firm will, in the future, not enter machines in International races where supercharged machines are allowed to compete with unsupercharged ones and where there are no restrictions on the quality or quantity of the fuel. I have for a long while felt that it is unfair for the British manufacturer to compete against the well-paid foreigner, who comes over here with his supercharged machines to race against us, unless some restrictions are put in the regulations which will have the effect of levelling matters up. This can easily be arranged by altering the

regulations concerning the quality and the quantity of the fuel used, but, in spite of representation made to the ACU in the past concerning this matter, they have still refused to take any action, and I therefore feel we are better out of it. After all, if the TT Races are still to be (a) of any use to the manufacturers in this country, and (b) run as a spectacle for the people who go over to see them, then the answer to (a) is that the ACU must give some consideration to the class or type of machine which it is proposing to foster and develop for the future, and the answer to (b) is, if it is going to be a race, let it be a race which is fair, reasonably equal to all, and with a chance of some close finishes. No one wants to see a procession! It is not without some regrets that we make this decision, as it must be remembered that we have been consistent post-war performers, having sent in 180-odd entries during the period, but we must now decline to enter into the present distinctly unfair competition.

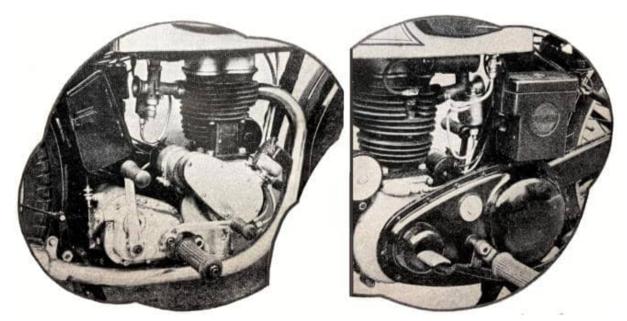
E Walker, Managing Director, The Excelsior Motor Co."



"The components of the BSA are so well proportioned that at a casual glance it is difficult to tell that the engine is only a 250."

"IN DESIGNING THE MODEL C11 250cc ohv BSA the makers set out to produce an inexpensive machine that would run for long periods without attention or replacements—a machine which, in addition to providing day-in, day-out reliability would have a better-than-average performance and a really low petrol consumption. A road test of the machine shows that those responsible for the design have succeeded to a remarkable degree. In the matter of petrol consumption, for example, the makers claim between 100 and 120mpg. On test the new BSA had a petrol consumption of 109mpg at a maintained speed of 40mph! The controls of the machine have been simplified in a praiseworthy manner. There is a total of only five. These are the two brake controls, the gear change pedal, the clutch lever and throttle; the need for an air lever, ignition control and exhaust lifter has been purposely eliminated. The machine is thus extremely simple to ride. On the machine tested the clutch control was on the heavy side and the clutch action a little jerky. The gear change, however, was light and simple, and the pedal conveniently placed. Actually, all the controls are well placed; the brake

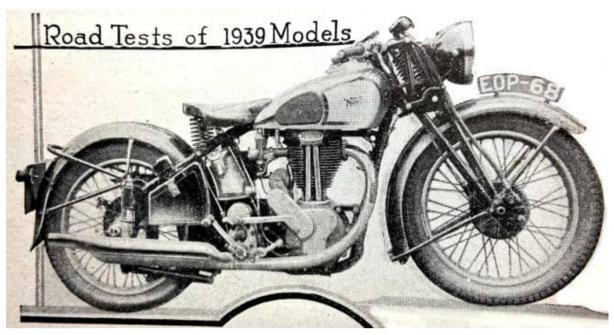
pedal was particularly comfortable to use and is just where it is wanted—immediately under the rider's toe. Praise must be given also to the riding position, which is suitable even for a rider 6ft tall. The position is of excellent touring type. The handle bars are of comfortable shape and the relation of saddle, footrests and handlebars very good. Saddle springs for a fairly light rider were fitted, and although with a 13-stone rider these allowed the saddle to bottom on bad bumps, in normal circumstances the degree of comfort afforded, owing to the long range of travel, was above the average. The riding position inspires confidence, and from the moment of getting into the saddle there is the feeling that one has complete control of the machine. In addition, the steering and handling of the machine were found to be first-class under all conditions. Negotiating tramlines and bad city roads called for no special skill, and in traffic blocks the machine could be ridden feet-up at very low speeds without difficulty. On the open road, too, the steering was above reproach. No steering damper is fitted; so excellent is the steering that none is wanted. At cruising speeds of 40-45mph the steering was positive, and even at the machine's maximum of approximately 70mph it was never unduly light.



"All moving parts of the engine are totally enclosed and even the clutch-operating mechanism is housed inside the gear-box shell." (Right) "Although the BSA is a low-priced machine, it has such refinements as an oil-bath primary chain case and a neat stop for the brake pedal."

Cornering with the BSA was delightful, for the machine could be laid over for bends, fast or slow, without any effort, and the model always took the corners smoothly and steadily. So marked was the ease of control that the BSA was purposely taken over difficult trials going. Muddy lanes that would cause the rider to travel warily with many machines were ridden over as though they were main roads, while on rocky hills the machine was delightfully easy to control. To criticise this new BSA in any respect is next to impossible. The front brake might have had a little more power, but on the other hand

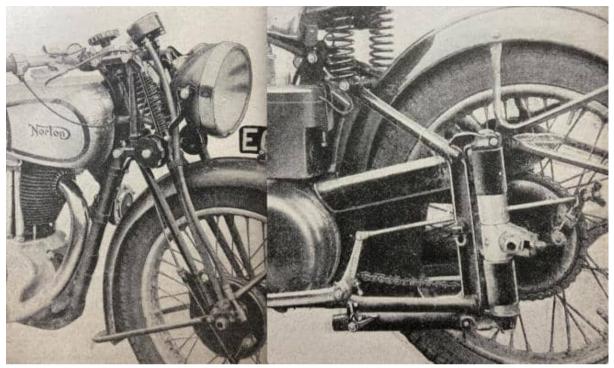
there was the advantage from the novice's point of view that the brake could not be misused. Both brakes were smooth, and the rear one with its long, well-placed pedal could be applied with absolute precision. The engine, with its coil ignition, automatic advance and retard and single-lever carburettor, proved really simple to start. Starting from cold was merely a matter of flooding the carburettor, switching on the ignition and gently digging on the kick-starter. The slow running was certain, and the pick-up from low speeds very good. In the recent cold weather the engine naturally took a minute or so to warm up, making it necessary to avoid rapid opening of the throttle for the first few hundred yards. In top gear (6.6 to 1) the minimum non-snatch speed was the low one of 12mph. The machine was frequently throttled down to between 15 and 20mph for traffic conditions, and the acceleration from these speeds was well up to standard. Throughout the range the engine was smooth and pleasantly free from mechanical clatter. At high speeds on the open road there was a certain amount of 'rumble', but this was neither unpleasant nor excessive. An ethylised fuel was used throughout the test. The engine pulled well and would only pink if allowed to slog hard on a hill. Pebblecombe Hill, in Surrey, which is a long climb with a maximum gradient of 1 in 5½, was climbed in second gear (9.8 to 1) in spite of a late change. Probably the most outstanding feature of this new BSA is its amazing capacity for hard work. The 250 c.c. engine withstood long periods of 50 and even 55mph without any signs of stress. After many miles of such hard flogging the only visible signs of the harsh treatment were a slight leak of oil from the timing case and a blueing of the exhaust pipe. At speeds of 40-45mph there was a useful reserve of power and acceleration ready to be employed at the rider's will. In the performance tests the BSA showed that it was capable of a surprising turn of speed, and under favourable conditions the machine was timed over a quarter-mile at 69.2mph, while the mean of four timed runs seas 65.9mph. These figures, of course, were obtained with the rider reducing wind resistance by crouching down as far as possible. Even at these high speeds the exhaust noise was not excessive. At normal speeds the note was healthy and crisp, but well subdued. The Model C11 BSA thus combines an excellent performance with marked economy. It has been specially designed to run for long periods with a minimum of attention, and this, with the simplification of the controls, makes the machine particularly suitable for riders who are not interested in the mechanical side. In brief, the machine appeals for both utility and pleasure riding."



"The latest ES2 Norton looks every inch a thoroughbred that has been developed from successful racing experience."

"THE IMMEDIATE SUCCESS in the racing field that attended the introduction of the Norton spring frame made many enthusiasts sigh for springing on production models. This year for the first time the spring frame is available on what may be termed a sports Norton as opposed to the super-sports International models. The model recently submitted to The Motor Cycle for road test was a 490cc ES2. It may be said at once that the steering and road-holding of the machine attained the very high standard that was anticipated. The rear springing is of the plunger-type similar to that used for racing, but in production form it is not so massive and is neater generally. That the springing is thoroughly efficient is evident in the first mile on the road, for bumps and pot-holes are ironed out as if by magic. On London's tramline setts the worst bumps could be felt by the rider, but all the normal rear-wheel bouncing associated with rigid-frame machines is absent. At traffic speeds the steering was very light—unusually so to a rider accustomed to rigid-framed models. As a result the Norton was particularly easy to ride feet-up at a walking pace. It was also steady on tramlines. For town work and at normal touring speeds it was found that little or no fork damping was required. At high cruising speeds slight damping gave a steadying effect, particularly on poor roads. No praise can be too great for the steering and general behaviour of the Norton on the open road. Really high speeds could be used in absolute comfort and safety. Even at 70mph on main roads the steering was so steady and the general feel of the machine so excellent that the rider could relax and ride comfortably with one hand on the bars. Cornering also was delightful, and the machine could be taken round fast bends in long, easy sweeps. It was just as happy when being leaned from one side to the other on twisty roads. With this superb road-holding is allied braking of the highest order. Both brakes on the Norton were relentlessly powerful, and smooth enough for the rider to apply

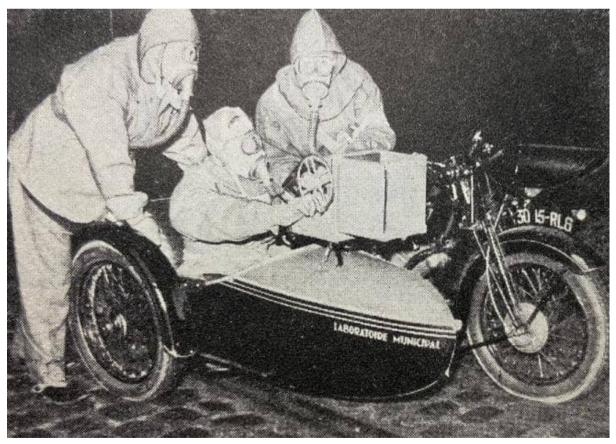
them with confidence on greasy roads. The action of the rear brake with its long pedal is particularly pleasant. An idea of the power of the brakes can be gathered from the braking figure of 33 feet from 30mph. The brake controls, in common with the other controls on the Norton, are well placed.



"Sound front fork design is essential to good steering. The Norton has the well-known rebound springs and an efficient fork damper." (Right) "In its production form the rear springing is neat and simple. The unusual forward-folding stand has an ingenious safety clip."

The brake pedal is adjustable and comes conveniently below the rider's foot. Little criticism can be aimed at the riding position and general layout. The flat handlebars give a comfortably low position for the rider's hands and the shape imposes no strain on the wrists. The saddle could be a little farther back for a tall man, but the relation of the footrests and handlebars is good. The gear box, gear change and clutch are almost perfect; there is no noise in any gear, the clutch is sweet and light and quite free from drag, and exceptionally fast gear changes, either up or down, can be made at almost any engine speed. For perfect comfort the movement of the gear lever could be shorter; with the present design the adjustment of the lever is limited by the footrest hanger. The outstanding features of the engine were high performance allied with a good capacity for slogging. An ethylised fuel was used throughout the test and only when the engine was misused did pinking occur. With the ignition fully retarded the minimum non-snatch speed in top gear was between 15 and 16mph; on full advance the speed was approximately 20mph. Acceleration in the gears was fully up to the high standard expected of a machine of this type, while the speed of 71mph, attained at the end of a quarter-mile from a standing start, is particularly good. It has been said that cruising

speeds of up to 70mph could be used in comfort, and at this speed the engine was perfectly happy, although obviously it was revving hard. Apart from a slight period between 55 and 60mph, the engine was pleasantly smooth throughout its range, and even when it was over-revved in the intermediate gears did not suffer from 'buzz'. The best timed speed over the quarter-mile was 81.8mph. The mean timed speed of the machine was 77.6m.p.h. Low-speed carburation was erratic in the early stages of the test, but this fault disappeared within the first 100 miles, and thereafter idling and slow pulling were excellent. With the ignition slightly retarded the engine would run remarkably slowly, particularly so in view of its high performance. Starting was easy at all times. From cold, very generous flooding of the carburettor was necessary, and until the engine was warm the air lever had to be used to obtain smooth running. Throughout the test the machine proved extremely . economical. Oil consumption was very low, and at a steady 40mph petrol consumption was 93mpg. Some criticism could be made of the engine as regards mechanical noise, for a certain amount of clatter was audible at all times. This was probably heightened by the fact that the exhaust note is particularly quiet and pleasant. This Norton, then, can be highly recommended for all who yearn for fast cruising in comfort and safety. The engine has a good performance, the roadholding is superb and the braking excellent. In spite of a great deal of hard flogging the machine remained absolutely oil-tight."



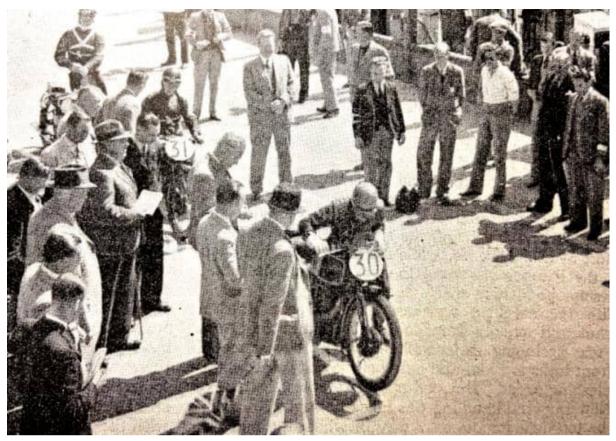
"Here come the bogy-men! This picture was taken in Paris during recent anti-air raid exercises. There are now 100 of these special motor cycle outfits in the city."

"THE FOLLOWING REMARKABLE LETTER has reached me from a professional factory pilot, being inspired by my eulogy of motor cycling in the Prospective Riders' Number of The Motor Cycle: 'I owe all I really know about flying to motor cycling. Feel of machine, sympathy with an engine, quick thinking, judgment of speed and distance, and ability to act under discomfort are absolute essentials in flying; and nothing approaches the motor cycle in developing these qualities, or in keeping them in first-class trim. That's the practical side of it; on the other side one owes to the sport all the beauty of England, the scents and feel of the countryside, complete detachment from the everyday, and the centaur-like triumph of a good machine. No other way of life can equal these—flying, wonderful as it is, only touches the edge of this world. I have done solo aerobatics at Hendon, flown modern machines at 300mph, and love it all; yet coming home on a spring evening makes one shout with the joy of oneness with the machine, drunk with the keen air cleft at speed. Flight is a clumsy affair compared to motor cycling; racing a sailing boat, driving a fast car are tedious and spiritless by the side of it."—Ixion.

IT IS OBVIOUS to all observers that the future of the TT is a trifle precarious at the moment. The main immediate reason for anxiety is the adoption of the supercharged engine by certain firms. As soon as a blown machine can match the reliability of an unblown machine of equal class, the unblown machine has as much hope of victory as a donkey has of winning the Derby. A great slump in entries is the inevitable consequence. The ACU has just published its draft regulations for the 1939 TT and on the technical side they display no novelties whatsoever. Once more the blown engine competes on level terms with the unblown, in spite of its very material advantage in what may be called effective capacity. The result of this is already visible. A factory which normally furnishes about one-third of the entries in the Lightweight Race (never a crowded event) has announced its abstention from the 1939 race. We are passing through a transition stage, from which we may emerge with a radically revised TT or with fleets of blown multi-cylinders. The immediate necessity is to preserve the TT until we have made up our minds about the future. As a purely personal contribution, I suggest that the awards in the 1939 races should be duplicated, and two sets of 1st, 2nd and 3rd prizes be allotted in Senior, Junior and Lightweight, to the fastest blown and un-blown machines in each category. It I were a maker, I would not spend good money with no chance of ranking higher than, say, 4th; but I would spend money to rank as the fastest unblown 250cc on the market; for the average man very definitely does not want a blown engine."

THE BLUE 'UN INVITED Stanley Woods to weigh in on the supercharging debate: "Supercharged! The very word seems filled with the spirit of adventure and endeavour, and is calculated to strike an answering chord in the heart of every sporting motor cyclist. At least that is how it seems to me. I know I am not appealing to the vast majority of motor cyclists when I sing the praises of the supercharger, for they ask of

what possible use can it be to the average man? Of little enough use, I admit, at the present stage of the development of the internal-combustion engine. But the same thing was said of overhead valves and front brakes, to quote only a couple of items from the long list of present-day commonplace fittings that were looked upon as unorthodox and unsuitable for production only a comparatively short while ago. Even the working lad who keeps a motor cycle solely for getting to and from his work seems to prefer the more efficient overhead-valve engine. Probably because it gives him those few extra minutes between the sheets each morning! After all, when one bears in mind that the research chemists of the big petrol combines admit that of the total potential power locked up in petrol, over 80% is wasted, one can realise that there is plenty of room for development. From my point of view I welcome the advent of superchargers because they mean more power and speed. And that is what really counts in racing. On the score of increased fuel consumption I am not worried. Over the past ten or twelve years petrol consumption on an efficient single-cylinder 500cc TT engine has not increased to any marked extent. On the other hand, power and speed have increased in a very notable manner, proving that racing research is developing internal-combustion engines along the right lines. The introduction of superchargers will speed up the introduction of multicylinder engines, which is a move in the right direction so far as the man-in-the-street is concerned. And if these multis, when supercharged for racing, prove to have abnormal thirsts, it can only be a matter of a short while before their designers overcome that difficulty, for there is no point in building up the maximum speed of the machines only to have to throw away the advantage by lengthy pit stops. As a rider, I am roused to the greatest enthusiasm by the thought of a supercharged multi. Of course, I do not know yet, but it seems to me that it should combine the smoothness and even torque of a multi with the kick of a big single. When I think of the smooth, even surge of power developed by the twin-cylinder Husqvarna and Moto Guzzi machines I rode a few years ago, and visualise what the results of successfully supercharging them might be, I am impatient to be let loose with a machine of this type."



"A glimpse of Stanley Woods, one of the most successful road-racing men in the world, just about to start in a TT."

"A CERTAIN AMOUNT of general post is occurring on the technical side of the industry. Recently two important changes were announced. First, there was Val Page joining Triumphs. Then came the news that Joe Craig had left Nortons. A week later there was the announcement that he had joined BSAs. Now I hear that Mr. Anstey, the chief designer of Ariels and the designer of the ingenious spring frame, is severing his connection with this firm at the end of the month. The news reaches me just as we are closing for press, so what his plans are I do not know. There are rumours of one or two other changes occurring. It seems to me that the interchange of ideas consequent upon the changes and the bringing of fresh brains to bear upon a factory's products cannot help but be an advantage."

"FROM A REGULAR weekly perusal of the correspondence columns of your esteemed journal it would seem that the prevailing political and international outlook is beginning directly to affect your readers. Every week the letters become gloomier and gloomier, and the attacks on something or other more vicious. Even our institutions are not safe. The TT the 'International', the ACU, the ohv single, the weather, the roads, the police—one and all they get a weekly caning. What's wrong with everybody? Let's take a rapid look at their grouses. THE TT: While we could win it without any trouble, it was taken for granted. Now we have a little competition what do we find? Wail after wail about superchargers, moans about the entry. Mr Norton, for perfectly good reasons of his

own, decides to let somebody else have a turn. Result, panic! If, after carrying a lion's share of our prestige for years and years, Mr N is not entitled to a breather, then who is? THE INTERNATIONAL: I thought we won the Trophy in 1938, or didn't we? And if my memory serves me right, several 'dangerous' competitors blew up. THE ACU: As an ordinary rider, this august body doesn't trouble me a scrap. But if the sporty boys don't like it, why do they put up with it? Taken by and large, it does a fairly good job of work, I should say. THE OHV SINGLE: Now here there has been a lot of vulgar abuse of a tried and trusted friend. After all, if one doesn't want to ride an ohv single, then one has plenty more from which to choose. As to the remaining things that are attacked—well, there isn't much you can do about the weather, except dress to meet it, or stay at home; the roads, after all, are obviously improving slowly but surely; the police are all right if you behave; and the remaining topic which comes to mind, ie, ease of maintenance well, there again, take a look at your tool kit sometime. The outlay of 10s on one or two spanners very often removes 90% of the trouble. No, boys, things are capable of improvement in lots of ways, and they're not nearly so bad as you think. Suppose we leave all these things to the people who know the right answers, and go hack to enjoying riding on the world's finest machines.

'ES2', London, SW18."



"TWO FEATURES MAKE the 344cc Model 46 DL New Imperial an outstanding machine. They are the unit construction of engine and gear box and the rear-wheel springing. In the New Imperial design these features are complementary; the machine is extremely compact even to the extent of being 'cobby'. The rear-wheel springing is no new feature and the result of the manufacturer's experience in this direction is evident in the magnificent steering and general handling of the machine. The steering was delightful under all conditions. It was always light—but never too light—and it was positive enough to make the use of the steering damper unnecessary even at speeds of 70mph. At the other end of the scale the New Imperial could he ridden almost to a standstill feet up. When crossing tramlines there was no trace of waver and on greasy roads the machine proved exceptionally stable: This stability obviously is in part due to the rearwheel springing. There was no feeling of the rear-wheel movement at any time; what the rider noticed was the entire absence of rear-wheel shocks. On bumpy main roads high speeds could be kept up without the rider having to hang on to the machine. An important feature of the New Imperial design is that the amount of movement of the springing can be controlled by the rider from the saddle. With the damper slackened right off the springing gave armchair comfort at traffic speeds, while for cruising on the open road the damper was used to give that firmness that makes for good high-speed

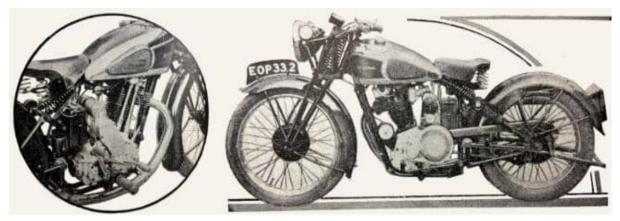
steering. With the excellent rear suspension is combined a pleasant and smooth front-fork action, and the front, and rear springing mate well together. The range of the front forks is wide, and only on one or two occasions did clashing occur. But perhaps the greatest feature of the New Imperial handling was its cornering. No praise can be too high for the easy way in which the machine could be swept round bends at high speeds or low.



"The New Imperial layout is so neat and compact that only the springs under the saddle demonstrate that the rear wheel is sprung."

and round sharp or wide bends. On a particularly twisty stretch of road, which normally limits speed to between 15 and 20mph, the New Imperial was outstanding, and only the law prevented the rider from maintaining more than 30mph over this section. As regards performance, the New Imperial showed up very favourably. The engine was lively and the acceleration well up to average for an ohy 350. At touring speeds the whole machine had a velvety feel, and there was no harshness or any unpleasant mechanical clatter. The engine was particularly happy between 40 and 50mph. Higher up in the range there was slight vibration, but it was not bad enough to prevent the river using 50 to 60mph for long stretches. Maximum speed under normal conditions with the rider sitting in the saddle was about 65mph, but in the timed tests with the rider 'lying down to it', the New Imperial achieved 72.6mph on one run over the quarter-mile, while the mean speed of four runs under conditions that were not ideal was only just below 70mph. The machine could be taken up to 40mph comfortably in second gear and up to 50 in third. Throughout the test an ethylised fuel was used, and under no conditions did the engine pink or show signs of doing so. Low-speed pulling was exceptionally good, and the machine would pull happily in top gear up long dragging gradients. Some idea of the engine's capacity in this direction can be gathered from the fact that by judicious use of throttle and ignition Pebblecombe Hill, in Surrey, which has a gradient of 1 in 51/2, was

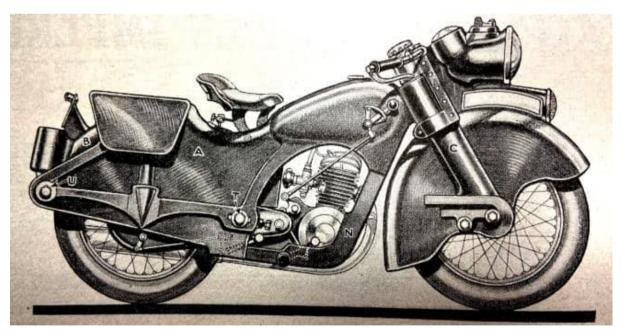
breasted in top—a good performance on a 500 and an outstanding feat for a 350. Even under these



"This view shows how the battery and voltage-control regulator are mounted close up behind the engine, and how general neatness is obtained with unit construction." (Right) "All the moving parts of the New Imperial engine are fully enclosed. Extra protection for the rider is provided by the flange on the rear mudguard."

conditions the transmission was smooth. On the level, with the ignition fully retarded, the New Imperial could be throttled down to 16mph in top gear, and for normal work 20mph was a comfortable minimum speed in top. Slow running was certain with the ignition retarded, but on full advance the engine had to be kept turning over fairly steadily. Starting when the engine was warm was always easy; from cold a hearty kick and a generous throttle opening were required to ensure that the engine fired. An easier start would be obtained if the kick-starter spun the engine more. It has been said that the engine was quiet mechanically, and this applies to the whole unit. All the gears were silent, and the slight whine from the transmission was only audible when the engine was not under load. The exhaust note was pleasant and well toned down. Little criticism can be made of the riding position and control layout. The handlebar shape and the mounting of the saddle allow a straight-arm position even for a tall rider, and the footrests have a fore-and-aft adjustment. All the controls are well. placed and the brake and clutch levers are long and of a comfortable shape. The clutch was light and smooth, but did not free entirely. This did not, however, affect gear changing and rapid changes could be made at almost any engine speed. Bottom gear could be engaged from neutral cleanly if the lever was pressed firmly. Incidentally, the gear lever is well placed for convenient use. Both brakes were well up to the general high standard of the machine. The rear pedal is where it is wanted—under the rider's toe, and this brake could be used with confidence even on wet surfaces. Both brakes had ample power, and a crash-stop could be made in 35 feet from 30mph. Throughout the test the New Imperial remained free from oil leaks and the oil consumption was very low. At a maintained 40mph petrol was consumed at the rate of 72mpg. To sum up, the New Imperial proved a delightful touring machine. The engine combined silkiness with a good performance, and the steering, road-holding and braking were superb."

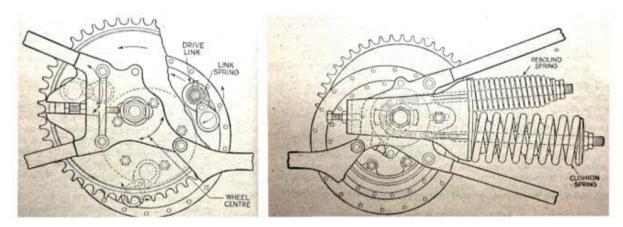
"OF QUITE OUTSTANDING INTEREST are two DKW patents dealing with frames and forks of laminated synthetic resin. This material must not be confused with that utilised for simple moulded articles, which is unsuitable for carrying heavy stresses. In essentials it consists of superimposed strips of paper or, where particular strength is necessary, of fabric saturated in synthetic resin and compressed in heated steel dies at pressures ranging from 4,200-5,600psi. The section can be built-up and reinforced to resist localised stresses and while offering a saving in weight is comparable in strength and rigidity to a sheet-steel pressing. Moreover, it possesses additional advantages in comparison with sheet steel. For instance, under severe impact it is less liable to crumple and collapse, and instead tends to yield and subsequently recover. Auxiliary equipment can be moulded with the main structures, thus reducing the cost of production and assembly. It is non-resonant, nor is it subject to corrosion, and as it comes from the press the surfaces are smooth and require no preparation for the-final lacquer coating...The use of plastic materials for such a design opens up entirely new possibilities. Of course, the type of structure suggested for the purpose of patent registration is not necessarily the same as would be employed in practice. It is not intended to limit its use to lightweight machines, and the firm has also patented frameless car bodies of similar laminated material. Provided that the initial expense of the presses, dies and equipment can be spread over a large output, the cost of production should show substantial economies. German firms are undoubtedly planning for large outputs both for the home market and also for an intensified drive in the export field."



"The proposed mouklded-frame DKW comprises a main frame (A), an auxiliary frame (B) and front forks (C)."

"A SIMPLE AND EFFICIENT spring wheel has long been the accepted theoretical ideal for the suspension of a motor cycle; in consequence, particular interest attaches to a design patented by Mr A Kuehn. Briefly, the arrangement consists of a knockout spindle

between the fork ends on which is mounted the brake drum and driving sprocket, a sleeve, a shock absorber and a small sprocket which, by means of a short chain, actuates the springing mechanism. These components are definitely located by the spindle and are concentric with it. On the sleeve is an eccentrically mounted inner hub on which, in turn, is mounted the hub of the wheel. Thus the wheel can revolve round the inner hub and the inner hub can move in an arc relative to the sleeve. The arc movement, controlled by the springs, is not conveyed to the spindle; hence the design is essentially a spring wheel. Advantages immediately apparent are low unsprung weight, no variation in tension and fineness of brake control."



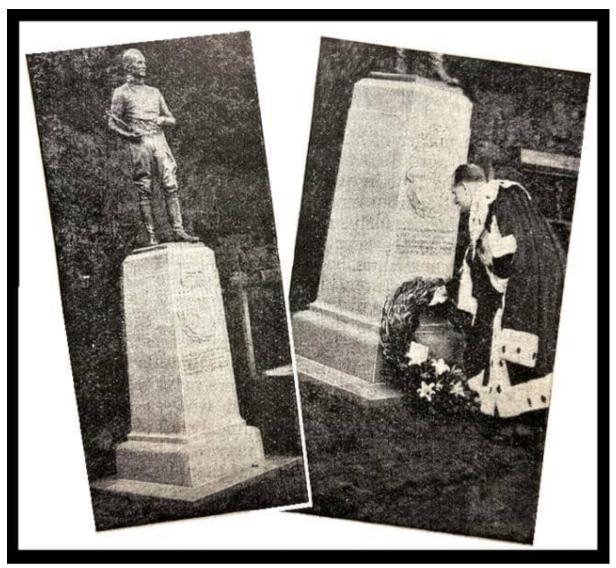
"A brake-side view of the Kuehn design. The wheel moves along the arc shown close to the spindle nut." (Right) "Movement of the eccentric hub actuates the sprocket, which in turn operates the springs by means of the chain."

"AFTER A NIGHT OF DRIZZLE and mist the morning of the Kickham Trial dawned clear and bright last Saturday. All the snow had become a thing of the past...However, those tit-bits which Vic Anstice and his friends prepared on the slopes around Bath were by no means to be despised, and competitors were warned—not without reason—that the keeping of a clean sheet was likely to be difficult. In point of fact, one hill, Clandown, had to be eliminated after the first circuit, and it transpired that no competitor got round without loss of marks. Two riders, Allan Jefferies (349cc Triumph) and GEH Godber-Ford (498cc Sunbeam), tied for first place with the loss of six marks each, but in the stopand-go test the former produced the figure of 4.4sec, against the latter's 4.8sec. Thus it was a fairly close thing for the solo men, but the sidecars had rather a tough time of it, the highest in the list being WS Waycott (495cc Velocette sc) with a loss of 21 marks. In scoring his win and taking the Kickham Trophy, Allan Jefferies once again showed that there are few to equal him in this trials game. Godber-Ford, too, is a force to be reckoned with; he has made great strides since he entered the competition field and looks like being one of those who insist on giving the lie to the contention that there is no one to take the place of the older stars."



"Pleasant—but not so pleasant; Allan Jefferies (349cc Triumph) tackles the rocks and slime of Mount Pleasant with the ease and assurance that make the expert." (Right) "FH Whittle's 598cc Panther sidecar in an odd leap of Tower Lane."

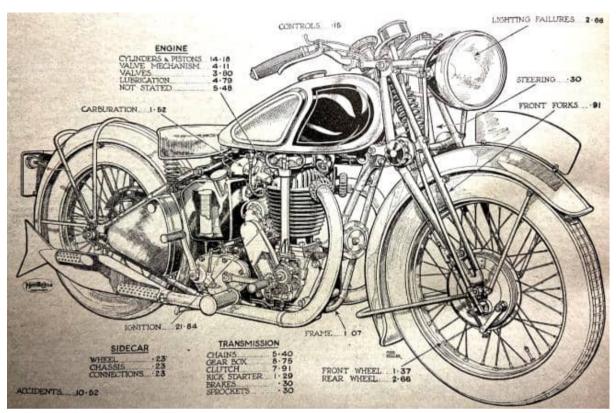
"ABOUT FOUR THOUSAND people stood in the rain last Sunday just before the unveiling of the Jimmy Guthrie Memorial in Wilton Lodge Park, Hawick, Guthrie's home town. Many were Scottish clubmen from various parts of Scotland, while at least one little group had driven by sidecar up from London for the ceremony. All Guthrie's family, Joe Craig and Freddy Frith, were present. When Major WA Innes came to unveil the memorial, the rain ceased and the sun came out. Major Innes paid tribute to Jimmy Guthrie's modesty even at the height of his fame, and to his worth of character, and emphasised how appreciated was the gesture of the German people after Guthrie's death. The memorial was dedicated by the Rev JAG Thomson, and was formally accepted on behalf of the town by Provost Landles. Pipers played a lament during the ceremony. An illuminated parchment setting out Jimmy Guthrie's racing successes has been placed in the public museum in Hawick."



"The left-hand picture shows the Jimmy Guthrie Memorial at Hawick after the unveiling, while on the right Provost Landles is seen laying a wreath on behalf of the citizens of Hawick."

"WHEN Lancashire folk are asked what" hot-pot" is the usual answer is, 'Well, it's meat, and potatoes, and—well, it's hot-pot, of course." Actually, Lancashire hot-pot is a simple dish. It might be called a stew, but it is certainly not the kind of stuff known as Irish stew. Hot-pot is made by putting a layer of sliced potatoes at the bottom of a stew pot. Then a layer of not too finely chopped mutton with a dash of herbs. One or two more alternate layers of the same kind are added with a light sprinkling of flour between each. Some water is put in and the 'roof' is a thick layer of sliced potatoes; the pot is then put into a slow oven and left for about three hours. As a social function a hot-pot is an evening affair. It may be held at any hour, however, although it is generally a supper, equivalent to the Yorkshire 'pie supper', for it is a very substantial dish. Usually a hot-pot supper starts off with a noble heap of the dish, and it is always supplemented by pickled cabbage and beetroot, plus a hefty lump of bread; second helpings are always offered. Apple tart generally follows, then cheese, butter, more bread, celery. Obviously, beer

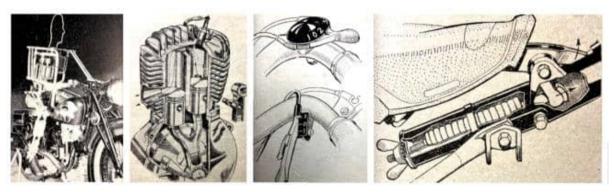
and stout are the only suitable accompanying drinks—or water. Coffee is usual at the end, however. A hot-pot supper is most definitely not the time for boiled shirts or starched manners. It is a man's meal for a 'men only' do.—Wharfedale."



"Breakdowns analysed. In an analysis based on the records of their 'Get-You-Home' service and covering 1,412 machines handled during 1938, the RAC states that 14.18% of motor cycle breakdowns were due to failure of cylinders or pistons; this compares with 8.37% per cent. in 1935, when the last analysis was made. Another interesting point is that ignition failures were almost the same as three years previously, 21.84% as against 21.96%; in the opinion of the RAC this high figure is due mainly to neglect on the part of owners., Other interesting figures concern chains, 5.87% in 1935 and 5.40 In 1938; gear boxes, 9.65 and 8.75; and lighting, 2.41 and 2.66. The drawing shows the various parts of a motor cycle concerned in the analysis and their responsibility for breakdowns expressed in percentages."

"NEW DESIGNS AT THE BERLIN SHOW are conspicuous by their absence. This applies not merely to the motor cycle side of the great annual exhibition but to cars and commercial vehicles. The reason is that the German Government has decided that the three industries must be rationalised: the number of different types of motor cycle is to be reduced from 150 to 25; of cars from 55 to 23; and of commercial vehicles from 110 to 14...In all probability it will not be until next year that there is any positive result from the new policy. Then may be seen ingenious new designs—perhaps the widespread adoption of plastics...On the other hand, this 'normalisation', as the Germans are calling it, may spell a series of very ordinary machines in which much has been

sacrificed for ease of production and for he sake of extremely low selling cost. It is an extremely bold move and one which is possible only in a Dictator country... a not unimportant question that affects the German motor cycle manufacturer is the promised advent of the 'People's Car'.



L-R: "Working models are a feature of the Show. In the case of the NSU the electrical robot goes through all the actions of driving the machine. changing gear from top to bottom, braking, and so on." "A single Y-shaped connecting rod is employed in the double-piston two-stroke Püch." "Both the 100cc NSU Quick motorised bicycle and the new 125cc motor cycle have simple gear controls on the handlebar." "Many German motor cycles now have neat pivot-mounted saddles with adjustable springing. The example illustrated is that of the 250cc TWN."

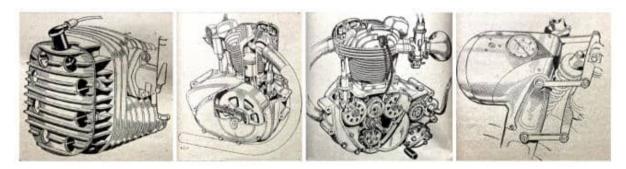
This is to sell at 990 Marks, and the present price of a 350cc solo motor cycle such as the 351 OSL NSU is 1,045 Marks. Not only is there this matter of price, but large numbers of the German people are paying into a fund for this national car. Under the new arrangement the smallest motor cycle—that is a machine with a kick-starter and no pedals—will be 125cc. For a pedal-assisted machine 100cc is to be the limit, and cycle firms will not be allowed to make motor cycles—only motor-assisted bicycles. An interesting point is that whereas the 200cc motor cycle has been a very important factor in the growth of motor cycling in Germany, largely because of licensing questions, there is growing concentration upon machines of 250cc, which in a number of cases are offered with sidecar. Germany is coming more into line with Great Britain in the matter of engine sizes. On the other hand there is not a single production model of 1,000cc in the show. The transverse four-cylinder Zündapp is not exhibited, nor the Püch 'Four', and the sole 750cc models are the 750cc side-valve BMWs. There are, however, several 600s, though the bulk of the machines shown are under 350cc. While the rationalisation is not to affect machines costing over 1,200 Marks—that is, highly priced sports mounts at 210 and more Marks than the People's car—the view is that it is unlikely that there will be additional models making their appearance...In the reviews of recent Berlin Shows it has been pointed out that in Germany the motor cycle manufacturer must, as far as possible, use substitutes for metals which would otherwise have to be imported. One result of this is to be seen in the





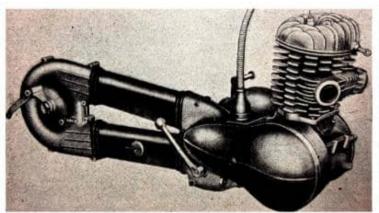
"Probably no machine in the present Show is more interesting than this new TWN double-piston two-stroke, which is stated to develop 50% more power than the previous single-piston machine." (Right) "BMWs no longer exhibit their 200cc single-cylinder machine. In its place is this neat ohv 250."

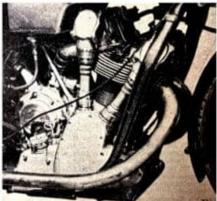
finish of the machines. The plating lacks the lustre to which the British motor cyclist is accustomed, and there is not the same use of plating. Incidentally, the finish of machines exported from Germany seems better than that for the domestic market. Compared with the Earls Court Show and the old-time exhibitions at Olympia, the hall devoted to motor cycles at the Kaiserdamm, Berlin, is small. In the middle there are seven stands: BMW, DKW, TWN (the German 'Triumph Werke Nürnberg), Püch, Victoria, Zündapp and NSU. On small stands at the side are Ardie, Tornax, Favorit, AJL, Maico and Hercules, while elsewhere there is the Sachs exhibit and, among commercial vehicles, a few three-wheelers...The total number of makes is therefore considerably smaller than in England. On the. other hand, the quantity of motor cycles produced is much larger, and a twin given pride of place on the DKW stand bears the frame number 500,000! Only some three years ago the figure proudly displayed was 300,000. BMWs recently celebrated their first 100,000, but in this case, of course, the aim is to produce highly priced, exclusive-type machines rather than to go in for quantity. production. Unquestionably the BMW range, in its design,



L-R: "Unusual design of the light-alloy cylinder head employed on the high-efficiency 750cc side-valve BMW." "In the case of the 350cc single-cylinder Zündapp the clutch is of the fly-wheel type with the duplex primary chain on the outside. An outrigger bearing is provided in the chain cover." "Arrangement of the timing gear and twin camshafts on the 346cc Zündapp." "On the larger Ardie two-strokes the head lamp and speedometer are neatly incorporated with the top of the pressed-steel fork blades."

finish and general appearance, stands supreme in the exhibition. Of change, however, there is hardly any—merely a detail here and another there. What is interesting is the fact that the 200cc shaft-drive single is not shown. In its place is a 250cc single with particularly clean unit construction and a foot-change on the near side. A neat built-up tubular loop frame is employed in conjunction with plunger-type front forks. The Bosch dynamo is mounted on the forward end of the crankshaft. A feature unusual in Germany to-day is that the saddle is sprung on British lines, ie, the nose is pivoted, while at the rear there are twin compression springs. Generally, the practice in Germany is to have one or more tension springs which are attached to the seat stays at the rear end and, at the other, to levers that are part and parcel of the pivoted saddle nose. The larger BMWs have this arrangement with a simple means whereby the leverage can be adjusted, thus enabling a single spring to suit riders of different weight. The 250cc model is quoted as producing 10hp; the 350, 14hp; 500cc, 24hp; 600, 30hp; the 750 R71 side-valve, 22hp; and the 750 R12 side-valve, 18hp. In the case of quite a number of machines the showcards place more importance upon the figure for maximum power output than upon the engine capacity...All the BMWs over 350cc are transverse-twins. The more powerful of the. two 750cc side-valve machines has an Interesting form of cylinder head. Cast in one with a normal type of light-alloy detachable head there is an extension 'plate'.

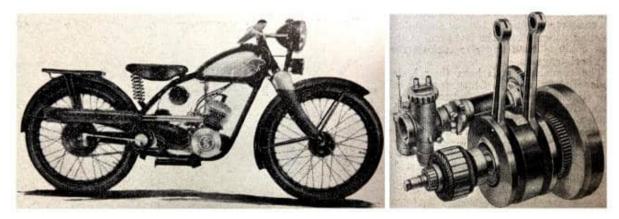




"Total enclosure of the rear chain is becoming increasingly popular in Germany. In this, the TWN design, the front end of the rear chain case encloses the carburettor, the cables for which pass through a metallic casing like that of a speedometer drive. The interesting tab-type finning of the cylinder will be noticed." (Right) "The supercharged twin-cylinder NSU, which is to appear in the TT in three different sizes, namely, 250, 350 and 500cc."

This is well ribbed and provides additional cooling area as well as apparently helping to save the engine from damage in the event of the machine toppling over. The head-fixing screws and the sparking plug pass through holes in the extension 'plate'. A feature of British design which is growing in popularity is the foot change. Until recently only the export model of the 500cc twin-cylinder DKW two-stroke had a foot gear-change; now it is standard for the German market as well. Incidentally, this gear pedal is combined

with a tank-mounted hand control, a DKW patent. Another interesting point about the 500cc model is that the makers offer specially wide handlebars for machines that are to be used with a sidecar. This is an extra costing merely a couple of Marks...Strangely enough, there are few spring frames exhibited. Other than the DKW and the BMW there are only the Sachs and a working model of the new Tornax design, which has a system of links arranged rather like a 'Z' and tension springing. The Sachs is interesting because the rear forks, like the front ones, are sprung by means of a large rubber 'bush'—'Schwingmetall', the Continental tyre people call it. Hand-operated cam-type rear chain adjusters are fitted to this, the 125cc model. They consist of large cam-shaped steel plates with small protruding ears or thumb pads. Similarly, there are few shaft-drive mounts. These are limited to the BMW range and the 500cc side-valve and 600cc ohv transverse-twin Zündapps. The latter firm continues its neat 350cc single that was introduced last year. This has the exhaust and inlet cam-shafts set in front and to the rear of the cylinder respectively.



"Rubber suspension is used for both the front forks and the rear wheel on the 125cc Sachs. Both front and rear springing is of the pivot-action type." (Right) "How the rotary valve and crankshaft are arranged on the 250cc TWN. Note, too, the offset little-ends and the armature of the dynamo."

A point here is the neat way the built-up welded front member of the frame encloses the fixing lugs of the crankcase. One NSU 250 is shown fitted with a lightweight sidecar. Both 250cc and 350cc machines are now often listed for sidecar work and available as complete outfits. The TWN concern exhibits an interesting new double-piston two-stroke of 250cc which is stated to develop 13.4hp—some 50% more power than the single-piston engine of the same size. Unlike the Püch, which has a Y-shaped connecting rod, the TWN employs two rods with separate crankpins. The crank-pin for the cylinder which carries the exhaust ports is a few degrees in advance of the other. A rotary inlet valve is used and is gear-driven from the crank-shaft. This is fed by a carburettor that is completely hidden by an aluminium housing which forms the front end of the rear chain oil-bath and also encloses the flywheel magneto. The connecting rods have their little-ends slightly offset...The remainder of the exhibits consist almost

entirely of two-strokes—indeed the two-strokes so far as the stands in the motor cycle hall are concerned out-number the four-strokes by something like two to one. One interesting two-stroke is a 1,000cc twin in another hall. This is the Seld, fitted experimentally in an OEC duplex frame. Although of simple type it is stated to develop 36hp at 3,300rpm and to have done so for hours on end. The feature of this engine is that the middle portion of the hollow two-throw crankshaft forms a rotary valve, while in addition to gas being induced in this manner there are normal piston-controlled inlet ports. The aim has been to obtain a high power output without any sacrifice of simplicity. Here, too, tab-type cooling fins are employed. On the sidecar side there is little that is new. Bodies remain of the doorless type with low-cut sides, except that Stoye show a neat sunshine saloon. This make employs rubber-band suspension front and rear...Special sidecars are available for 250 and 350cc machines. These, however, are not exceptionally light. For instance, the lightweight Steib is roughly 881b. Some of these sidecars, incidentally, are decidedly small. Briefly, the position is that the German motor cycle industry is marking time. There are interesting points in connection with the present show, but very few new designs. It may be that a year hence there will be a very different tale to tell. On the other hand, nationalisation of the industry could conceivably spell stagnation. It will be interesting to see the outcome."

"MANY READERS HAVE expressed keen interest in the hunting-type of boot worn by German competitors in the International Six Days Trials held in Wales, and have endeavoured to purchase similar boots. In consequence, James Grose, of Euston Road, London, NW1, recently decided to produce a boot of this type. Full stocks are now available at-the price of 32s 6d a pair."



"Smartness is

a feature of the James Grose hunting-type boot."

"LAST SATURDAY'S VICTORY TRIAL was, without doubt, one of the most successful of the entire series for which the Birmingham Club has been responsible. [Historical footnote: among illustrious club members was Rem Fowler, winner of the first twincylinder TT—Ed.] This result was in no small measure due to the standard-tyre rule. Realising that the course which has been favoured for the last few years would be unsuitable, the Club carried out a fresh survey of their old happy hunting-ground around Bewdley. In the Habberley Valley, they found four new hills, all within a few moments' walk of each other, and the curious point about it all is that they have been undiscovered previously, although within sight of the old Jacob's Ladder used on several former occasions. Apart from these four hills, there were only Red Marley and Birchwood; so that the trial was almost confined to this valley. The short course was covered twice. It was by no means an easy course. Trophy winners had to fight hard for their awards, and sidecar drivers found one or two of the obstacles just a little too much

for them. Although, generally speaking, wheel-grip was not difficult to obtain, sheer gradient and rough surface combined to defeat sidecars, and it was just as well for all concerned that the course was not wet. To Billy Tiffen (348cc Velocette), who won the Victory Cup for the best performance, and to FC Perks (496cc BSA sc), who took the Cranford Bowl for the best side-car performance, congratulations are due for very stout efforts."



"Two men versus gravity: HK Mansell (490cc Norton sc) and his passenger stow themselves well for ard on the steep gradient of Tibbits Hill." (Right) "On the rocks: PG Handford (348cc BSA) assumes a striking pose for a few seconds as he tackles Tibbits Hill. Note the partially deflated tyres."

"AS THE FIRST EAST CHESHIRE Group Trial of this year had had to be postponed on account of snow, and the second had had to be redated on account of the restrictions imposed by the RAC and ACU Joint Committee on the use of the Buxton area, the two organising dubs, Sale and Manchester, pooled their resources and ran one thoroughly enjoyable event last weekend. It was enjoyable for three reasons. First, because the weather was mildly bright all day; secondly, because the district used was a change from the usual 'Buxton area' course; and, thirdly, because the route-marking was so very thorough, without being too obtrusive. It was route-marking as it should be, just sufficient indication entering the corner and a spot for confirmation well inside the new direction. The only snag was the instability of standard tyres on 'fast' sections surfaced with the Derbyshire variety of grass and slime. The start was at the Waterloo Inn between Buxton and Taddington and the course lay over towards the South, Yorkshire district, an area with some excellent hills even if there is too much 'main road' between them. However, the route finders had managed to link up most of the 'sections' with useful 'three-ply' substitutes for these same main roads. Early in the proceedings was

an observed splash, Brook Bottom, near Great Hucklow. It was quite deep, but was dismissed as harmless by all except AE James (490cc Norton), Stockport, J Sellars (497cc Ariel), Stockport, L Flowers (496cc BSA), Urmston and GK Swindells (349cc BSA), Sale, who stopped, so that if the splash did not deal in quantity it certainly collected quality. A rather tough trip across moorland tracks over Bamford Edge led to the notorious Callow Bank. However, it had been decided that the first 'step' was beyond the capabilities of standard tyres, and an exceedingly tricky and slimy zig-zag at the foot of the bank was substituted for the entire climb. And this also proved beyond standards! Actually, nobody survived this bit, which was in the nature of a trick-riding or controllability test. The hairpins were so acute and the surface so much like the stuff put into grease guns that it was no uncommon thing to see a machine sliding with neither wheel revolving—and each one sliding in its own particular direction! The least touch of rear brake would skid the wheel and stop the motor. The least touch of the front brake would skid that wheel and bring the model down. PC Reece (349cc Triumph), Manchester '17', for example, made a beautiful attempt, but his engine stopped when the wheel slid. Ken Norris (248cc Red Panther), Manchester University, made the only absolutely clean passage of the hairpins and then made one dab to straighten out just before he cleared the section. GP Whyrimn (596cc Douglas), Manchester University, was excellent after he had lost all his marks on the seemingly easier approach section! AE James (490cc Norton), Stockport, and HP Cartwright (349cc BSA), Stockport, both demonstrated the method of footing gently (and no more than was needed) and keeping on the move. Of the other sections, Riley's Rise, with its slippery leaf-mould under trees, agreed least of all with standard tyres. Few of the 30 finishers had no tales to tell of sodden 'partings', and there was none who did not regard trialling on standards as dangerous as it was found to be when the East Cheshire Group voluntarily operated on standards for a full twelve-month three years ago, and, in the light of that experience, decided that standards would either kill them or kill the sport. PROVISIONAL RESULTS. Group Tankard (best performance): 1, GP Whyinan (596cc Douglas), Man University, marks lost, 9; 2, KB Norris (248cc Red Panther), Man University, 14; 3, RC Lacey (497cc Ariel), Manchester '17', 15; 4, C Holden (496cc BSA), Man Eagle, 16; 5 J Cox (346cc Levis). Stockport, 17; 6, PC Reece (349cc Triumph), Manchester '17', 18.



"In the rut—but an out-ot-the-rut climb: GEH Godber-Ford (496cc Sunbeam) exerts mind and muscle on the immediate problem—Yew Tree Hill."

"LETTERS IN BRIEF: The competitor who experienced clutch trouble in the Barnesbury Club's trial on January 15th sincerely thanks the club member who assisted him...Support for Mr VT Sanders' suggestion that touring-type crash helmets should be available to the ordinary rider is given by Mr L Black, Press Secretary of the London MC Touring Club...The sidecar competitor (DUV 778) in the Aldershot TVTC trial sincerely thanks the two Ravensbury Club members who assisted him when he experienced difficulty in hub-deep mud on an unobserved section of the course...Referring to Excelsior's withdrawal from this years event, Mr RH Richardson (London, N16) says, 'Surely the best way of replying to the "foreign challenge" is to adopt the foreigners' own tactics and beat them at their own game"...Mr W Seaman (206, Seaforth Avenue, Motspur Park, New Malden, Surrey), states that he has formed a group among boys at Stoneleigh West Central School, Ewell, with the object of slowing them how a motor cycle works, etc. He would welcome unwanted motor cycle parts and accessories of any description and condition, and will collect any donations within a radius of 50 miles."

CLUB LIFE WAS FLOURISHING with the best part of 200 items on the 'Club Events' page in a typical issue of the Blue 'Un. One issue's offerings included a BMCA 'mock trial', a Bradford Vagabonds tour of the Dukeries, an IMTC weekend rally (with filmshow and test rides on a Tiger 100), a London Co-operative MCC dinner dance (at a Masonic hall) and a Scunthorpe MCC 'bachelor supper'. The Leicester Aces enjoyed a tour of theior local power station. Also on offer to clubmen were technical talks, darts matches, 'games tournaments', table tennis, dances, runs to sporting events, a 'ladies popular vote run', a 'social secretary's birthday run', a supper dance, a 'junk hunt', a 'follow-the-leader' run, a 'sawdust chase', and an 'intelligence run'.

THE MOTO-CHENILLE MERCIER was designed in Paris by Adrien Mercier with a four-bogie track in place of a front wheel. Power was supplied by a 350cc ohv JAP engine mounted on the handlebars. It was tested by the British and French war departments who quickly rejected it. Tests showed it to be slow, unwieldy, hard to control and thirsty, with a consumption of 24mpg—and the track peppered the rider with mud and stones. Also designed in Paris, by Jean Lehaitre, and also rejected for military use, was a fully tracked contender designed to be fitted with a machine gun. It's impressive crosscountry ability was offset by a top speed of 25mph and poor manoeuvrability: steering entailed hauling on the handlebars with moved the track sideways.



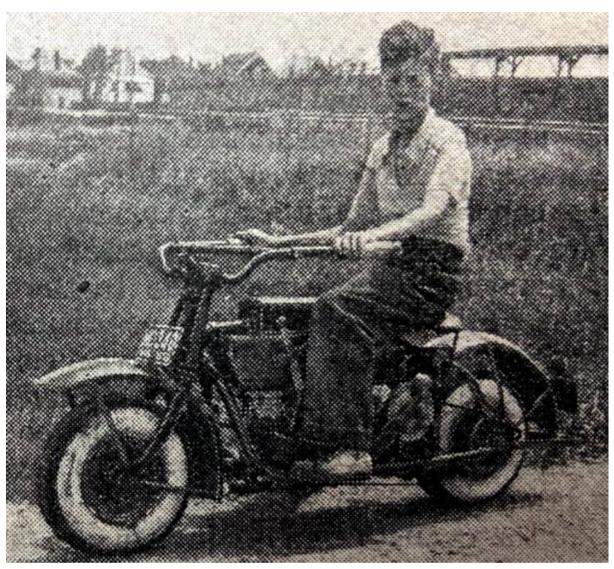
Despatch riders were spared having to go to war on the Lehaitre or (right) the Moto-Chenille.

"OVER 20,000 PEOPLE watched the road races held on the new Lobethal circuit near Adelaide, Australia. The results showed a clear victory for British machines: the Senior rare was won by G Hannaford, on a Velocette; the Junior by F Mussett, also on a Velocette; and the Lightweight by GH Hinton (249cc BSA). The sidecar event also went to a British machine, a 596cc Norton outfit, driven by B Rehn. There were some extremely exciting final laps in the Senior race. At the outset, G Hannaford (Velocette) took the lead, closely followed by the English rider, DC Minett, on a Norton. At the end of the second lap Hannaford was fifty yards ahead of Minett, who in turn was about 150 yards in front of a New South Wales rider, Art Senior. In the fourth lap Senior retired with

a flat tyre, while Hannaford was still in the lead with Minett closely harrying him. A rider named Hector moved up into third place. Then the crowd really was on tiptoes! At the start of the last lap Minett obtained the lead from Hannaford. The latter nearly overshot the bend at Kayannie, but he got round safely and continued in hot pursuit of Minett. There was only fifty yards between them as they raced towards the finishing line. Then Minett had bad luck. He braked suddenly, apparently to avoid a slower rider, and Hannaford shot by and just pipped him on the post. Hector ran out of petrol and lost his third position."

"I ENCLOSE A SNAPSHOT of a machine that might be of interest to your readers. Years ago, when I was a boy, I used to dream about a small motor cycle suitable for a boy, and I remember how I longed for one. However, I did not get one until I grew up, but I kept the idea in mind, and decided that, should I have a boy of my own, I would not forget my own yearnings. Well, I have a boy now, and he is 12 years of age, and I have made him a midget motor cycle. 'Details are as follows: The frame was originally a Henderson, but it has been cut down and re-brazed. Handlebars, mudguards, etc, have also been suitably reduced in size. Eight-inch diameter wheels are fitted, and these have 4.00x8in tyres and tubes. An interesting feature is the 'clutch', which consists of an idler pulley that tightens on the belt. Normal motor cycle brakes are employed. As regards the engine, this is a ¾hp Briggs and Stratton four-stroke (used for washing machines where no electric power is available). The machine has a maximum speed of 20mph, and the total weight is only 871b.

JE Biggerstaff, Winnipeg, Canada."



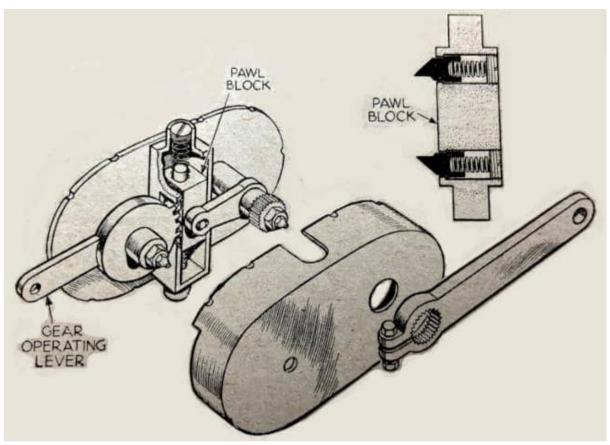
"Mr JE Biggerstaff's 12-year-old son astride the midget motor cycle constructed by his father. The machine has a ¾hp four-stroke engine and is capable of 20mph."

"THE THREE LARGEST German motor cycle manufacturers are DKW, NSU and Zündapp. In the first eleven months of 1938, DKWs produced 42,000 machines, NSU 28,375 and Zündapp 17,341."

"THE INTERNATIONAL MC Tour Club now has a membership of 364. Nearly 200 members travelled abroad last year, 63 in four members' parties."

"APROPOS OF RECENT REMARKS about perilous road surfaces, Lord Sandhurst testified before the Accident Committee of the House of Lords that in his opinion Cromwell Road is now one of the most dangerous thoroughfares in London. He asserted that small boys on bicycles are continually strewing groceries and fish and butchers' meat all over the road; and that on wet days vehicles approach pedestrian crossings at a mere creep, aware of their inability to pull up straight from more than 15mph."

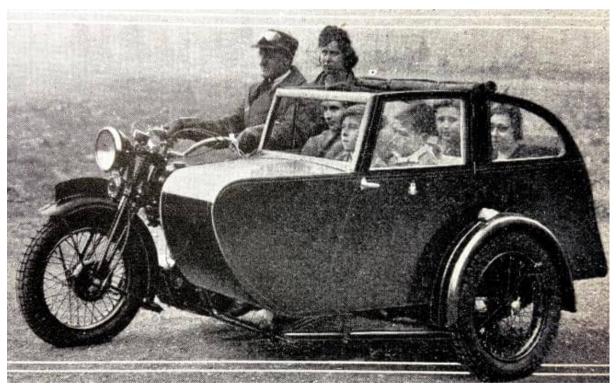
"ALTHOUGH DESIGNED TO SUIT my 1930 493cc BSA machine with a three-speed gear box, the positive-stop foot-change mechanism described could, I think, be adapted to almost any gear box, three- or four-speed, that has an external selector lever. The unit consists of a back plate to which is attached a housing containing a reciprocating pawl block and on each side a spindle. The front spindle carries a sleeve serrated at its outer end toward the operating pedal, behind which is the pawl actuating arm locating over a peg in the pawl block; the locating hole is elongated, as the arm moves through an arc while the pawl block travels vertically. The rear spindle supports a circular ratchet plate, the teeth of which engage with the spring-loaded pawls, and from this ratchet plate the selector lever operating arm extends beyond the back plate. A suitable control rod is fitted between this arm and the selector lever. Two spring-loaded pawls are provided which move in suitable drillings in the reciprocating block. These drillings are reduced in diameter at one end to form collars on which the pawls seat. At the other ends they are tapped to take retain-ing plugs for the springs. Each pawl is shaped to fit the drillings and is cupped for the spring; the pawl, bevel is on one side only and both bevels face away from the centre line. The pawl block has circular projections above and below, over which fit the centralising springs. These springs seat in cups which are fitted with screwed plugs at the top and bottom of the housing. A dust cover encloses the mechanism and is simply held in position by four nicks in the edges of the back plate with which four indentations in the cover correspond. Retaining nuts are fitted to the two spindles and grease nipples are provided. In operation, assuming the pedal is depressed, the flat face of the lower pawl engages with a tooth of the ratchet plate; the ratchet plate is turned slightly and by way of the operating arm, control rod, etc, the gear is selected. When the pedal is released the top centralising spring forces the pawl block downwards, the pawl slips past the ratchet and the pedal is in its normal position ready for the next gear change.—LWC."



"Constructional details of the ingenious foot-change mechanism described by 'LWC'. It shows what can be done by a skilful amateur mechanic who has the necessary workshop facilities."

"SPEEDWAY ATTENDANCES LAST YEAR totalled 3,889,916, according to official figures."

"VERY FEW NEW IDEAS have been introduced into reliability trials following the ban upon competition tyres that came into force on January 1st. The majority of organisers appear to have said to themselves, 'Ah, yes: We used So-and-so hill last year; which of them will have to be omitted because they are too difficult for machines equipped with standard tyres?' The result is that many trials have been much too like their predecessors. This is what we feared. Not only have the majority of those who plan trials been unable to think in terms of events other than those of the competition-tyre era, but there are signs in one or two quarters of a revolt against the decision that standard tyres must be employed in all trials upon the public highway. Indeed, some have gone to such limits as to assert that standard tyres are dangerous! It is as well to clear up a few points. First, the competition tyre was introduced simply to defeat the trials organiser; early on it was difficult to obtain competition tyres, for they were not available to the rank and file. In effect, they were the pot-hunter's tyres, and trials organisers might well have barred their use there and then. However, the stupid age-old view that there must be no restrictions prevailed, and organisers in self-defence had to include deep sloughs and other freak hazards in their courses, plus tests that placed a premium upon semiracing engines. Deft throttle-work ceased to be at the same premium, and no observant spectator could fail to see that in many trials the successful men were those who had the specialised hot-stuff engines and the nerve to tackle the muddy observed sections at speed. With the reversion to standard tyres there is greater need of engines that slog, and of true riding ability. Competitors must to some extent think afresh on the subject of the most suitable machine, and, more particularly, they must attain a new and higher degree of riding skill. The necessary change in tactics is a bigger one than most will admit. In the big open trials this is coming about as a matter of course, but in some events the competitors are rather childishly complaining that standard tyres are dangerous. In such cases the reason is either that the organisers have failed to provide suitable courses or that the competitors have still much to learn about riding—possibly a combination of both. It is not so many years ago that there was no such thing as a competition tyre nor the semi-competition tyre which is permissible for motor cycles, though not for cars. For ourselves, we would prefer trials to be run on true standard tyres. Nevertheless, we believe that the present change will eventually prove of considerable value—that it will help to ensure the continuance of trials and that it will make for trials that are more valuable and more interesting."



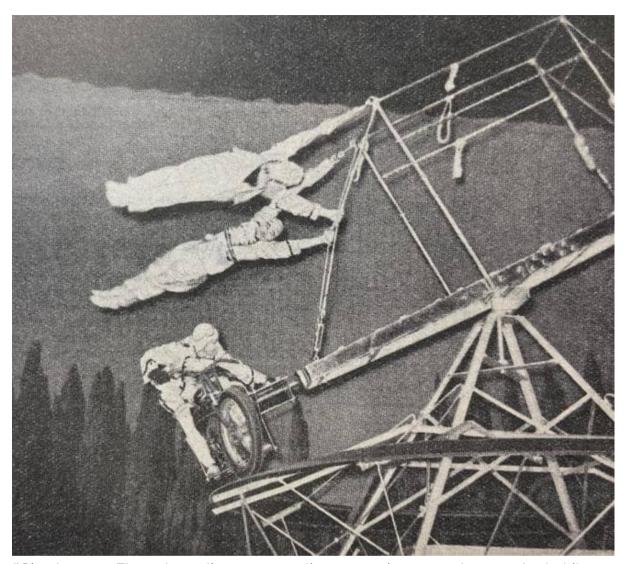
"Five into one sidecar does go if it's a special Watsonian Warwick saloon. The total weight carried when this photograph was taken was 375lb. This sidecar, an extra wide one, was made to special order."

"AN INTERESTING FACT that emerges from the latest registration figures is that a much larger proportion of motor cyclists now ride all the year round. In 1929 the number of licences current on November 30th, compared with the peak figure for that year, was

70.6%. By 1934 the percentage had increased to 72.8, and in the latest statistics—those for last November—the percentage is no less than 80.2; that is, four out of five motor cyclists ride all the year round. Figures, it is alleged, can prove anything. Certainly many constructions can be placed upon the latest data. While they provide positive proof that motor cycling is not just a summer-time hobby, they also suggest that of the owners of the 462,375 motor cycles registered last year there is a very large proportion who use their machines as indispensable personal transport. Actually, no figures are needed to prove that this is so; all that is necessary is to travel early in the morning and count the motor cycles on the road. The figures constitute a further recommendation to the industry to pay more attention to the utility side. Over 45,000 motor cycles were registered for the first-time in Great Britain during 1938. The precise total, according to MOT official figures just issued, was 45,239. The total number of 'new' registrations during the month of December showed a healthy increase over the December, 1937 total. The totals were December, 1937: 1,700 motor cycles; December, 1938: 2,178. Machines in all classes showed-increases, while the under-150cc class jumped by 100%."

"IS RIDING SKILL something you are born with—something you either have or have not—or is it something you acquire as the years pass? The answer seems fairly obvious—that some are born with a mechanical bent and 'feel', and others are not. All the same, mere handling of the controls and the ability to tell whether everything about the machine is running like the proverbial oiled silk do not comprise what the majority of us mean by riding skill. The man who is a born rider, in the usual sense of the term, does undoubtedly get the maximum from his machine. He has skill, but he is not necessarily a good rider. Last Thursday at lunch-time I saw a lad at Blackfriars Bridge, within half a dozen stones' throw of the office, who handled his mount superbly, but I should' have hated to be his pillion passenger. It would be wrong to say that he lacked riding skill, for the way he swerved round the inside of a couple of cars revealed that he could do most things with a motor cycle. On the other hand, he showed that he was wanting in both observation and imagination, the two attributes that, classed together, can be translated into the term 'roadcraft' or 'road sense'. Assuming that he had possessed what I believe the average motor cyclist looks upon as real skill, there would have been no possibility of his getting into a tight corner. He would not have almost brushed the near-side wing of the front car. It was thoroughly bad roadmanship...Of course, one cannot expect the driver of one particular type of vehicle to know the limitations of all other types of vehicle. On the other hand, surely every motor cyclist realises with very little thought that it can be unhealthy to overtake a moving right-hand-drive vehicle close in on the left? In the same way it is not difficult to remember from our cycling days that a man or woman riding a bicycle up a hill is liable to travel in a series of arcs. Every trip, every walk almost, can provide something in the way of road lore, and therefore add to one's riding skill. At first it. may be in the nature of a conscious effort to analyse the

actions of the drivers, riders and pedestrians one sees on the highway. It is, however, a good game and worth starting."



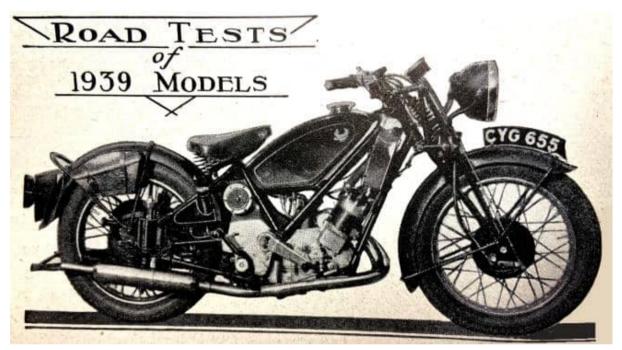
"Circular soar: These Australian motor-cyclist stunt artists were photographed while rehearsing for a variety art at the London Coliseum."

"A GREAT DEAL has been said lately regarding the difficulties of motor cycling under conditions of ice and snow...Several weeks ago I spent five days in Central Perthshire on my solo D Special Levis, when the temperature averaged 10 to 18° below freezing point, and the country lay under deep snow. Along the 'unfit for motors' road to Loch Tummel from Pitlochry, where the deep ruts had been frozen and filled with ice and snow, I experienced a snow blizzard, but was well protected by my Wilbeck screen. When I left Edinburgh on my way North I saw an AA sign: 'Ice-bound road, great caution'. At first I was somewhat nervous, but before I had covered many miles I had acquired the knack of driving as the road surfaces required. My first stop was at Pitlochry, 93 miles away. I had taken only 3hr 35min for the journey—an average of 26mph over ice—both glassy and rutted—and deep, frozen, rutted snow. Most of the trip was done in darkness with an icy cross-wind blowing. I did not require to 'foot' at any time, and I honestly enjoyed

the run, and looked forward to the days to follow with enthusiasm. My hopes were justified. On my return journey I encountered even more thrilling conditions, for there had been a heavy snowfall in Kinross-shire. Briefly, I attribute my freedom from trouble to the superlative steering and silky transmission of the Levis, to the grip of the 4in Universal rear tyre, and the power of the engine at low speeds.

AG Forbes-Howie, Edinburgh."

## "CLUBMAN'S SPECIAL" SCOTT with Spring Frame

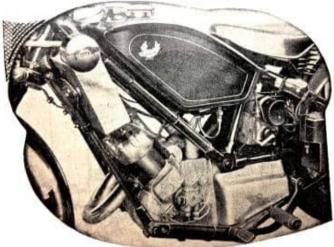


"The Clubmen's Special Scott has pleasing, rakish lines which give an inkling of its character."

"MUCH HAS BEEN WRITTEN about the attractiveness of the Scott. When a model such as the Clubman's Special, which the manufacturers claim is 'for the elect of speedmen', is introduced, it interests not only those who know much about Scotts, but others with just a passing knowledge that these two-stroke twins are unusual machines with an appeal of their own. The acceleration of this new Scott is outstanding. It is remarkable, for from a standing start the machine attained no less than 76mph at the end of the measured quarter-mile. If the throttle is opened progressively from 40mph in top gear the acceleration is good; it becomes pronounced when the speedometer needle passes the 45mph mark. Really high speeds are possible and practicable for long distances. The speed of 84.9mph was accomplished under very unfavourably windy conditions, and there is every reason to believe that in better circumstances a timed speed in the region of 90mph would be attained. This view is substantiated to some degree by the

speed of 80mph in second gear (5.5 to 1). With the machine on the open road the speedometer needle can be kept at about 75mph as often and as long as circumstances permit. Never does the engine give the impression of being over-driven; rather is there a tendency to flog the engine unnecessarily, so delightful is the silky power output coupled with mechanical quietness and an adequate silencing system. It is not only the engine which is responsible for the machine's capacity to maintain an exceptionally high average speed over long distances. Gear changing by the foot control is positive and ultra rapid—merely a slight interruption in the purr of the engine. The steering and cornering are first-class; even if the model were heeled over as far as the footrests would allow, a true course was always held. Road-holding is good but for a certain amount of back-wheel hammer, which the spring frame, though adding to comfort at high speeds, did not reduce to the extent anticipated. Extremely strong springs appeared to be fitted, which





"A near-side view of the sturdy rear suspension. The neat circular housing at the pivot of the stand arm encloses the return spring for the stand." (Right) "A duplex pump which controls the direct oil supply to the cylinders, is fitted on the near-side crankcase 'door'."

made the effective movement rather short. During the test experiments were made with rear-tyre pressures and for a rider weighing about 12½ stone in all-weather kit a pressure of 23psi was found the most satisfactory for the 3.50in section tyre. This is 5-6lb higher than the standard recommendation. The springing mechanism is absolutely rigid laterally and very neat in construction. When the Scott is regarded as a very high-speed machine the brakes can be criticised. For town work they are adequate, though rather heavy in operation. The front brake is the more effective of the two. Starting in all circumstances was an easy matter. With the engine hot usually only a dig on the kick-starter over one 'compression' was necessary, and similar tactics were effective with a cold engine; in the latter case the carburettor was first well flooded and the engine turned over fairly slowly two or three times. In town the Scott has gentlemanly

characteristics. The minimum non-snatch speed in top gear was 17mph and the lowest useful speed from which the machine would easily accelerate in its ultra-smooth manner was 17mph. Thus the usual driving speeds in built-up areas are comfortably within the compass of top gear. Idling is very satisfactory on half-advanced ignition and very little four-stroking occurs, particularly if the cylinder oil-feed is cut down to eliminate over-lubrication. Another good feature is that the pick-up is clean as the throttle is opened. The clutch is light in operation and takes up the drive progressively. All the controls are well positioned, especially the rear brake pedal, which is under the ball of the left foot. The riding position is lust about ideal for normal touring. For those who desire to use speeds approaching the maximum, a more 'sporting' type of handlebar shape would be preferable. On greasy surfaces and tram lines the handling is positive and on no occasion did the rider have the impression that a skid was imminent. There are many attractive features of the machine apart from its remarkable performance. The finish is of a very high standard and the colour scheme smart yet dignified. The new large-capacity tank is fitted with two quick-action large-diameter filler caps which do not leak even when the tank is brim-full. Really large tool bags, a very neat spring-up rear stand and a speedometer positioned so that it can easily be read, are other good points. To sum up, the Clubman's Special Scott is a machine to delight any enthusiast. The magnificent acceleration, the ability to maintain high speeds for an indefinite period, the complete lack of vibration through-out the speed range this performance with mechanical quietness and excellent steering and cornering combine to give the owner a new and thrilling experience."

"A DEGREASING PREPARATION known as 'Gunk' has been introduced by Charles Mack and Co, 52-54, Trevelyan Buildings, Corporation Street, Manchester. It is a thick, dark liquid, harmless to the hands and antiseptic. Tests by The Motor Cycle show that some remark-able results are obtained by its use. Oily and greasy parts, or complete units, if just brushed over lightly, or sprayed with the preparation, can be hosed or swilled down with water and all trace of oil -disappears, leaving clean bare metal."



"Awards by the hundred! This magnificent collection belongs to Jack Williams and shows 413 of the 500 and more cups and other awards which Jack has won since he started competition work in 1927. The huge cup in the middle is the International Trophy, of which, of course, he in the co-holder."

"WHILE I TAKE NO particular pleasure in the fact, it was interesting to see how many sidecar outfits figured in the pictures that arrived from Czechoslovakia last week. I saw not only photographs of solos, but also of hundreds of sidecar outfits, each with three soldiers aboard. I mention this because the authorities over here have until recently been employing only solo motor cycles. Apparently, unlike the Continental nations, they saw no particular purpose in the sidecar machine. However, the new mechanised battalions are being equipped with a number of sidecar machines, so maybe there is a change in outlook."

"NITOR' took the wind out of my sails last week by commenting upon the German Army's lavish use of motor cycles and especially of sidecars, as evinced in the news films. It would be extremely interesting to read the technical reports upon which such a policy is based. There is practically no difference in cost between a heavy military sidecar outfit and a small car (such as the Fiats, which I have seen in fleets on the Italian Army manoeuvres). The German decision may involve two factors, viz, (a) a preference for small man-carrying units, as compared with larger cars containing half a dozen men, and (b) a preference for the sidecar over the light car when small man-carrying units were decided upon. Alternatively, it is possible that the decision was merely opportunist, and that neither light cars nor larger cars were obtainable in view of the preoccupations of factories manufacturing such alternative transport. Personally, I plump for reason (b) and suggest that our own Government will soon appreciate the value of the sidecar outfit for military use."—Ixion.

"LANCASHIRE COURTESY POLICE warned or gave advice to over 1,000,000 road users in the past eleven months."

"THERE ARE NOW over 900 traffic light installations in and around London."

"SEVEN HUNDRED CORNERS and bends were improved to give better visibility in the North-Western highway division of Britain during a recent year."

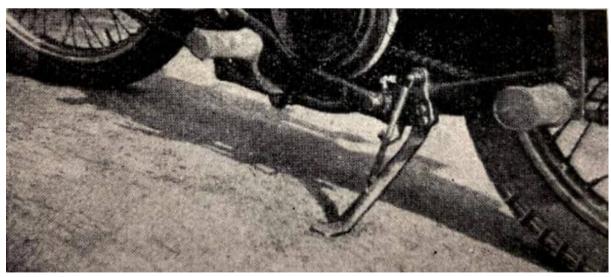
"JUST OVER 40,000 motor vehicles were registered for the first time during January, compared with 38,682 in January, 1938."

"A LOT HAS BEEN written about the ideal bike for the man in the street. Well, I had one, namely, the round-tank 21/4hp BSA that was made about 14 years ago. I rode this machine for 10 years every day, winter and summer, to and from work, and on holidays I made long journeys from London to Devonshire, etc. It gave me entire satisfaction, and all the time I had it I bought only one spare set of chains, one inlet valve and guide, one carburettor throttle, and one or two other small items (apart from tyres). It was not too heavy, the layout of the engine was excellent, and the fuel consumption was about 120mpg. I gave away this splendid little machine a short time ago only because the brakes were on the one back-wheel rim. I consider that a simple little machine like this is what is wanted to-day.

#### WJ Stevens, Wembley."

"RE THE RECENT correspondence on the question of stands, the photograph shows a prop-stand I have just had made for my 500cc machine. I first fashioned a light one out of strip steel for a pattern, then got the local blacksmith to make me a sturdy one; the charge was only 2s 6d, including a clip and spring. It has completely overcome the difficulty of hauling a fairly heavy machine on to its rear stand.

ME Bane, Norwich."



"The sturdy prop-stand that Mr ME Bane designed and had made for his machine."

"I WONDER HOW MANY readers have thought of the inconvenience that will be caused by the regulation that comes into force next year and makes towing by a solo illegal. Imagine being stranded and unable to accept a tow from a passing friend. Perhaps someone will tell use the reason for this law. Is the practice of towing supposed to be dangerous? I have towed bikes and cars for distances of 100 miles and more and, have never found it so.

MW, London, SW12.

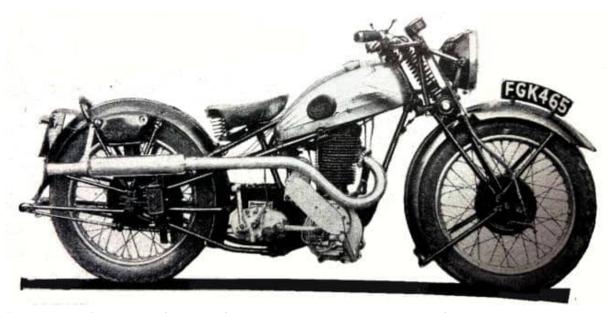
'MW' refers to The Motor Vehicles (Construction and Use) Regulations, 1937, in which it is laid down that 'As from January lst, 1940, a motor cycle with not more than two wheels and without a sidecar shall not draw a trailer."

"THE FOLLOWING IS A quotation from a recent book: 'I have a motor bike. It goes 80 miles an hour, and is a perfect thing. I hope to eat it shortly.' Name.the author, the make of the motor bicycle, and explain the last sentence! The author, of course, was Lawrence of Arabia. The bicycle was a Brough Superior. By eating his machine he meant that he was out of a job and was so broke that he expected to have to sell the Brough to buy food."

# ROAD TESTS OF 1939 MODELS

### The 490cc. De Luxe Cotton

"IN VALUE FOR MONEY the new 490cc JAP-engined Cotton is remarkable. It is also a machine with an excellent all-round performance. Not only was the mount tested capable of high speeds—a timed speed of 76.3mph was obtained over the quarter-mile—but the tick-over and slogging powers of the engine were more like those of a gas engine than a normal motor cycle. The engine is the new JAP, which has the push-rod tubes cast integrally with the cylinder and detachable cylinder head. A single exhaust port is employed and the valves, which are totally enclosed in the heavily finned head casting, are accessible by means of a large detachable aluminium cover-plate set at an angle on the near side. The carburettor is an Amal of the horizontal type, set close under the tank and thereby, so

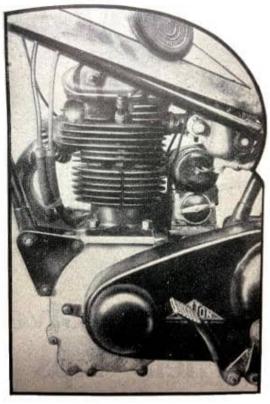


"The 490cc Cotton retains the triangulated frame made famous in the TT and other international races."

far as the tickler is concerned, rendered somewhat inaccessible. Starting the engine required no real effort. With the throttle only a fraction open and the ignition fairly well advanced the engine would start and tick-over at what proved by stop-watch to be an easily countable number of revolutions a minute. This is an outstanding feature of the power unit. As a test the engine was left ticking over like this for minutes on end. Thus in traffic there was no need to keep the engine revving by blipping the throttle. The exhaust prayed remarkably unobtrusive under all conditions. At a tick-over speed it was almost inaudible, while on full throttle there was no semblance of a 'bark'. Mechanically, the engine was quiet, except for piston slap, which occurred with the engine either cold or hot. The well-proved Cotton triangulated frame is employed in conjunction with Druid central-spring front forks. The result of these features, and no doubt the weight distribution, is steering, road-holding and cornering that are as good as probably have ever been attained with a 500cc machine other than with rear springing. In all circumstances the rider has the feeling of being in complete command. The machine can be ridden feet-up at a walking pace, lays over to perfection on corners and bends and at speed holds rigidly to its course. A low riding position is provided. The rider sits in the machine rather than on it. The degree of comfort is excellent, and the controls are well placed for easy operation. Handlebars of very good shape are fitted and, what is apt to be unusual, the front brake lever can be grasped without any stretching. The brakes are good; from 30mph the machine could be stopped on dry concrete in 38 feet. Flexibility is a feature that has already been touched upon. The engine has exceptional pulling power, with the result that there is no need for the rider to be constantly changing gear. It will slog away in cart-horse style up a hill, yet has useful acceleration. In second gear (7.6 to 1) the machine accelerated from 20 to 50mph in 81/sec, while from a standing start it attained 61mph at the end of the measured quarter-mile with, of

course, use of the gears. A particularly valuable feature is the smooth, quiet running of the machine in 30mph limits. The minimum non-snatch speed in top gear proved to be approximately 14mph. Anything from about 20 to 55 mph can be said to be a



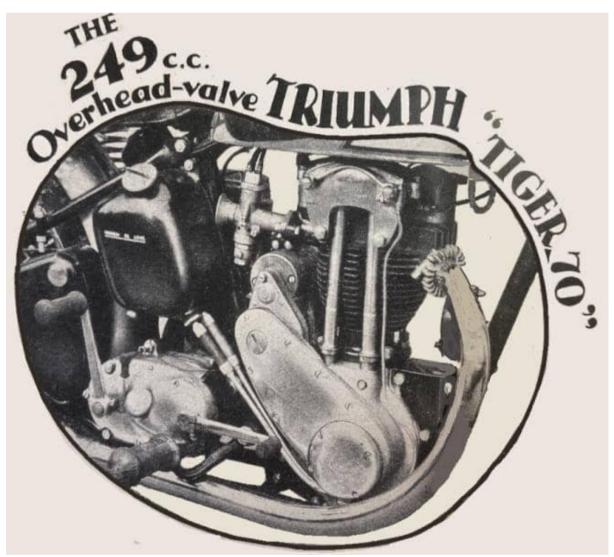


"In the latest JAP engine the push-rods operate in tunnels cast integrally with the cylinder and cylinder head. The overhead-valve gear is enclosed in the head casting." (Right) "An unusual feature of the engine is an air chute which is designed to assist cooling of the cylinder head."

comfortable cruising speed. Above the latter figure a fair amount of vibration occurred; below it the engine proved extremely well balanced. Another good feature was the freedom from pinking. Ethylised fuel was used during the test and on this it was almost impossible to make the engine knock. The gear box fitted is a four-speed Burman with foot change. The clutch was light. and sweet in operation. There was no drag and as a result not only did bottom gear engage noiselessly from neutral, but the gear change was both quick and easy. During the test the engine remained satisfactorily oil-tight barring on one run when it was found that the two screws fixing the aluminium valve-cover plate had worked loose. Although inexpensive, the machine is thoroughly well equipped. In addition to the multi-tube frame with its duplex front down tubes and its chain and torque stays, there are wide D-section mudguards, a Miller Dynomag, twin tool boxes, a 'reserve' fuel tap, large-diameter brakes and front and rear stands—the latter of extremely sturdy construction and provided with a racing-type clip. A neat highlevel exhaust system with a tubular silencer is fitted. A small desirable 'extra' in this

connection is a guard or lagging to protect the rider's wader of coat tails from coming into contact with the pipe. In brief, the Cotton provides a remarkably docile performance allied with a really good turn of speed and magnificent steering, roadholding and cornering."

### ROAD TESTS OF 1939 Models



"Neatness has been achieved in the power unit by rounding off all the sharp edges, by the total enclosure of all moving parts and by 'straight-lining' the oil pipes."

"THE 1939 TIGER 70 TRIUMPH comes into that exclusive class of 250cc motor cycles which combine exceptional docility with a lively performance. The machine looks a thoroughbred from stem to tern. It is extremely well finished and the latest colour

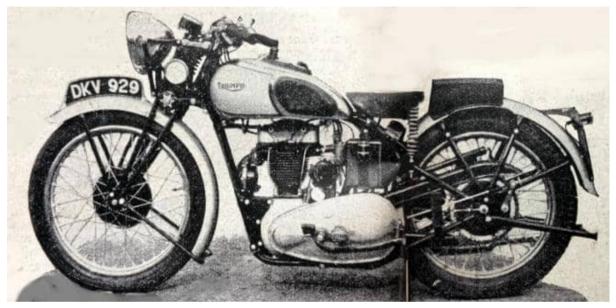
scheme is most attractive. Obviously much skill and knowledge have been applied to the design. The layout of the controls is good, the riding position excellent for a person of normal height, and the saddle, handlebars and footrests are well placed. Adjustment is provided for the footrests, gear lever and brake pedal, so that a position to suit individual tastes can be obtained. The engine would always start first kick from cold, and once started would continue to run evenly and slowly. No knack or special precautions were necessary, no matter whether the engine was hot or cold. An ethylised fuel was employed throughout the test and the carburation was 'clean' at all times. Too rapid acceleration from low speeds would cause the engine to pink, and it was found that under such conditions as accelerating in top gear against a head wind the ignition control had to be used. Acceleration in the gears was good. For instance, in second gear (10.5 to 1) the time taken to accelerate from 15 to 30mph was 5 seconds, and in top gear (6 to 1) it took only 17% sec to accelerate from 20 to 50mph. In built-up areas the machine was very pleasant to ride, for it would pull smoothly at less than 20mph in top gear with the ignition fully advanced and would accelerate from this speed to 30mph without fuss. With the ignition retarded the machine could be throttled down to 10mph in top gear and could be gently accelerated from this speed without transmission snatch. This docility is outstanding when the general performance is considered, for the 250cc Triumph is no sluggard. On the open road the machine could be cruised without effort at 50mph for long periods. If the rider was in a hurry there was plenty of power to spare and the machine could be quickly taken up to 60mph. A pillion passenger made little difference to the performance, except that earlier changes had to be made on hills in order to keep up the revs. On several occasions 70mph was attained under favourable conditions, and the best timed speed over a quarter-mile was 66.1mph. The useful maximum in third gear (7.33 to 1) was 55mph, and the machine would readily accelerate to 50mph in this gear in the course of normal fast riding. On hills, early gear changes were found advisable, otherwise the power would fall off quickly. Main-road hills were usually breasted comfortably in third gear. No praise can be too high for the general handling of the machine. The steering was light at low speeds, giving very easy control in congested city streets. There was no difficulty in riding feet-up at walking pace; the steering is of the type that invites the rider to put his feet on the rests as soon as the machine is on the move. At touring speeds the steering remained light and positive, and it was only at speeds over 60mph that a touch of steering damper was desirable. Cornering with the Triumph was delightful, for it could be swung into fast or slow bends with ease and with that certainty that inspires confidence. On bumpy roads there was a certain amount of rear-wheel hop, but on normal surfaces the front forks effectively damped out road shocks. For test purposes the machine was ridden over lanes and greasy tracks; it was always stable and really easy to control in these conditions. The reason for the many Triumph successes in trials was evident in the way the machine handled on observed-type going, and in the machine's stability



A 'tail' to be proud of. The Triumph back number plate and the general treatment at the rear give the machine a distinctive appearance from this angle."

on greasy city roads. The brakes are exceptionally good, and powerful enough for a much heavier machine. Both were very smooth in action, and the controls well placed for easy application. Their combined power is shown in the excellent crash-stop figure of 32ft from 30mph that was obtained. It has already been said that the finish is excellent, and this applies to the controls as well as to the general finish, The clutch was very smooth and free from drag, and the gear change sweet and positive. The engine was smooth throughout its range, and for all practical purposes there was no vibration 'period'. There was little mechanical noise. Certainly there was no clatter—simply the

pleasant hum of well-oiled machinery. The exhaust note was subdued and pleasant at touring speeds, and only became rather healthy if the engine were revved hard in the gears. There are many other refinements on this well-designed machine which will appeal to the discerning rider. Such features as the strong and neat number plates enable the machine to retain that new look for a considerable time, while the light on the instrument panel is useful for map reading and as an inspection lamp as well as for illuminating the oil gauge and the ammeter. As regards economy, the petrol consumption at a maintained 40mph worked out at the excellent figure of 107mpg. In spite of many miles of hard work under arduous conditions the engine remained quite free from oil leaks."



"The proportions of the Triumph are very good and the machine looks larger than the average 250."

"CAMBRIDGE BEAT OXFORD in the Inter-Varsity Speed Trials last Saturday, but it was no walk-over in the motor cycle classes, for the competition was keen and the honours well distributed. The Main Drive at Syston, on the old racing circuit near Grantham, was used for the trials, and the half-mile was timed from a standing start. Visitors to Syston in the old days will remember that the Main Drive starts with a short uphill stretch, levels out for about a quarter-mile, and then rises again with two slight bends. The surface is asphalt and not too smooth. During the afternoon an intermittent drizzle made the surface rather greasy. Competitors came to the line in any order and had their two runs as they pleased—no red-tape is a feature of these trials. AE Moulton (Cambridge), after some late plug-changing and a great deal of warming-up, went off in a cloud of steam and on one cylinder, but later got into his stride quite well. He was followed by GJD Tilley (Triumph Twin), who was to make for Oxford the best 500cc time in the sports class. His getaway was excellent, and his changes, although a little early, were very nearly perfect; his time of 30.65sec was well deserved. No one else got near him in this class, although DD Budworth (346cc AJS) made two valiant attempts for Cambridge. On both runs he

had vicious rear-wheel slides at the start, but he kept the grip open and was rewarded with times of 31.25sec and 31.30sec. Next best was REA Mason, on a standard Red Hunter Ariel. In the unlimited cc sports class, Tilley spoilt both his runs by missing his gear changes. He was beaten by Budworth, who continued his flat-out slide tactics; by ES Chapman (Cambridge), who made two very good runs on a stripped 246cc Radial Rudge which was too high geared for a good start, and by EN Bunting (998cc Vincent-HRD), who returned a time of 31.8sec in spite of kicking the exhaust pipe off when changing up at the beginning of the run. Thus Oxford won both the solo sports classes. All these men ran in the racing classes, but with the exception of Bunting, they were outclassed by faster machines. Best time in the 500cc class was made by PD Kennington (490cc Norton), of Cambridge. On the first run the motor was missing badly, on the second he had to shut off for an obstruction on the course and on the re-run he clocked 30.13sec. EN Bunting, on PM Aitchison's spring-frame Norton, was troubled badly with wheelspin at the start and could not better 30.52sec. It was in the unlimited cc racing class that the high-spot of the afternoon occurred. MN Mavrogordato, after two disappointing runs on a blown 250cc DKW, brought his 998cc Brough to the line. As he settled himself the crowd quietened down. On the signal from, the timing box, 'Mavro' let in the clutch and made a fine getaway under the nasty conditions. There was a reek of dope, a couple of spits, and he had disappeared over the brow of the bill. His gear changes sounded magnificent, and everyone turned to the box for his time. It was 26.85sec. Later he had another run, but wheel-spin shot him off the track and he only just retained control. EN Bunting tried hard with both the Norton and the Vincent-HRD to regain the honour of fastest time for Oxford, but conditions rapidly deteriorated and his best time was 28.2sec on the Vincent."



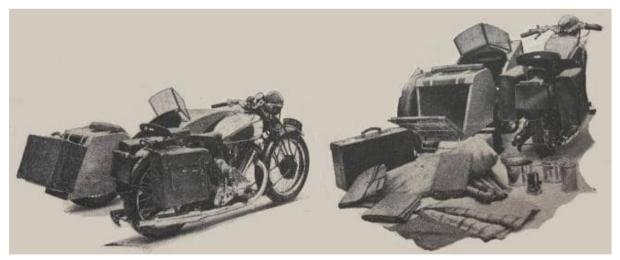
"MN Mavrogordato (998cc Brough Superior), making the best time of the day for Cambridge. His time of 26.85sec beat even the supercharged cars."

"PILLION TRIALS APPEAR rather to have missed their objective. One might assume that the pillion trial in its original conception was a trial to interest the class of rider who normally carries a pillion passenger on social occasions. But it was quickly realised that among such company an expert trials rider, with another ditto on his pillion, formed a duo that took a lot of beating. So the pillion trial tended to become rather a farce, with the contestants all experts in the trials game, with similar experts mounted behind them, and half the usual quota of machines left behind in their sheds for the day! Pillion trial winners were all too often the habitual winners of sporting solo trials who disdained 'bracket passengers' on all except these special occasions. Perhaps it is rather unkind to single out one particular event as the peg from which to hang a generality. But it is significant that in the East Cheshire Group's Pillion Trial last week-end the number of starters. was just about exactly half the number of riders in the Group's usual sporting solo trials! Moreover, the names of those who figured in the main result were strangely familiar, so that if they were given without calling attention to the fact that they were pillioning, the list would read like any other half-day trial result. The event was organised by the Metropolitan Vickers MC and as last Sunday was a 'closed date' for the home ground of the East Cheshire clubs, new pastures had to be sought in mid-Cheshire. This area is not too friendly, so that route-marking was avoided and a fully directional route card was issued; nobody lost the way or was late owing to card-reading difficulties. And, incidentally, all the 26 pairs who were entered were at the start, in spite of the Group Social the night before! In the Tarporley-Beeston Castle district, which is a much more 'agricultural' terrain than the usual Buxton area, there were several sections which

destroyed all clean sheets, and the ultimate 'best performance' honour had to be shared, as the timed section for deciding ties was not applicable in a sufficiently decisive way."

"FROM THE HORSFORTH CLUB, of Leeds, comes a fine idea for encouraging young riders to join the ranks. Riders under 21 may join the Club at the very much reduced fee of 3s 6d for one year. Then, when they have seen just how enjoyable is club motor cycling, they can become fully-fledged members at the normal rate. Ladies and non-riding members may also join at this reduced rate, so forming a supporters' club from which future members will be enrolled. The scheme is one that should appeal to all clubs wishing to increase their member-ship, and also to youngsters to whom the saving of a few shillings is important."

"TALKS IN THE CLUBROOM by distinguished speakers are becoming more popular every winter, but as yet only comparatively few clubs have discovered how interesting and enjoyable these evenings can be. The Accrington (Lancs) Club arranged for three speakers to attend the clubroom recently and over a hundred members and friends turned up. The men who spoke were Mr AE Hope and Jimmy Simpson of Shell Mex and BP, and Inspector Jones of the Lanes County Constabulary, who explained the aims of the 'courtesy police' now, working with such success in Lancashire. The evening was a great success and one of the high-spots was the discussion between Jimmy Simpson and speedway-star Joe Abbott on the respective merits of mineral and castor-base oils."



"This smart and practical Panther Redwing 100 and Pride and Clarke Le Mans sidecar will be on show at the Camping Exhibition, which opens to-morrow (Friday) at the Royal Agricultural Hall, High Street, Islington, London, N. Complete camping equipment for three people is packed in the sidecar locker, leaving the panniers and carrier for other luggage. A solo Red Panther for the camping enthusiast will also be shown at the Exhibition."

"CAUSTIC COMMENTS HAVE often been made by judges upon the activities of shadytype solicitors in road-accident cases. These 'ambulance chasers', as they have been termed, follow up accidents—even the most trivial—in order to enrich themselves. Their interest in the victim is nil; their aim is to despoil the insurance company and make the maximum possible sum for themselves. Often the basis is that the spoils shall be divided,50% for the victim and 50% for themselves. A frequent habit in trivial cases is for them to formulate a claim for an amount rather less than the sum the insurance company would have to spend in defending the matter were it taken to court. They know only too well that the insurance interests will in all probability pay up as being the cheaper way out. Needless to say, such activities have their effect upon insurance rates. In addition, the motorist probably loses his no-claim bonus and has a black mark against him. Is there no remedy? To date it seems that nearly all that has been done has been to request the legal fraternity to put their house in better order. Of the attitude of the Law Society and its anxiety to co-operate in eliminating this evil there can, of course, be no doubt, but it is impossible for it to take action in the absence of concrete evidence. Would it not be better for the insurance interests to co-operate, put a fraction of a per cent of their premium income into some central fund and in all cases where the activities of a touting solicitor are suspected, fight the matter to the utmost and thereby expose him?"

"THE TT COURSE this year will be faster still. This is revealed by an examination of the course we made last week. The main difference is that another mile of the Mountain road has. been reconstructed. It has been widened to 27ft around the Goose-neck, and the' Gooseneck itself banked! Apart from this, the lower part of Bray Hill has been made smoother. What saving of seconds will result from the alterations will not be known until practising begins for the TT, but the effect must be the saving of several seconds. In some quarters it is customary to point to the ever-increasing lap speeds as a measure of the improvement in engine power. While there have been remarkable increases in power output, the fact is that the speeds give no proper basis of comparison. The course has changed completely over the past 10 years—not because of the races, but because of the endeavour of those concerned to open up the Island for the tourist by providing smoother and safer roads."



"Fitted with the well-known 98 or 125cc Villiers engine-gear unit, this new OEC lightweight will sell at £25 10s, complete with legshields (not shown in the picture). A black-enamel rust-proof finish is used, and other details include a 2¼-gallon tank, 2.75in tyres, central prop stand, Terry saddle and a 5½in head lamp with Villiers lighting."

"I BOUGHT MY FIRST brand-new motor bicycle in the year 1900, paying—as was the custom—a 25% deposit with my order, and receiving delivery some six months later. The sole literature supplied with the machine, or indeed at any future time, was a badly printed folder of four pages, measuring about 8in by 4in, which was at once the price list and the maintenance booklet. To-day I have received by post an advance copy of the instruction book issued with the 1939 high-camshaft Sunbeam. It runs to no fewer than 92 pages and contains the most explicit and detailed instructions for handling, adjusting and repairing the machine, together with much shrewd advice on diagnosing the causes of any spot of bother which might develop in prolonged use. The modern motor cyclist is spoon-fed compared with us hardy oldsters, whose abysmal ignorance of our mounts was paralleled by an even greater ignorance on the part of the push-bike retailers to whom we had to appeal when we were beaten; for there were no garages worthy of the name in AD 1900."—Ixion.

LIVERPOOL POLICE TOOK delivery of a batch of 1,140cc Royal Enfield outfits, taking the scouse cops' fleet past the 50 mark.

"IT WAS A SUNDAY MORNING. I was on foot, envying the motor cyclists who shot past me at intervals, when suddenly the exhaust of the machine of a pillion couple was cut off as with a knife, and the rider pulled into the kerb, where the passenger stepped daintily off, leaving the superior sex to diagnose and repair. I paused alongside out of curiosity, actually Pondering which of several possible causes had stopped that engine so instantaneously. The bus was years and years old, and its owner obviously not very clever. He gazed rather vaguely and distractedly at both sides of the machine below tank level, and then began peevish and useless kicking at the starter. I was just about to suggest that he'd better verify his spark as a first step when I noticed that his side valves were stationary—a horrid sight, recalling memories of 30 years ago, when cams and timing wheels were fixed to spindles by brittle pins, and we carried a few inches of silver-steel rod as a routine spare. My heart bled for the disappointed couple as I directed them to a garage up the road, wondering precisely what had cracked up inside their antique engine. What a debt we moderns owe to the engineers who rendered timing gears invulnerable—I have not had one go since 1911, and that gear only went because I got hold of some dud oil, and seized up the engine. As I trudged off, leaving this disconsolate couple to a ruined Sunday, I fell a-thinking of the power of love. Nothing on earth would induce me to confine all my motoring to a not-always-wellsprung seat at the most vibratory end of a motor bicycle. Nothing would induce me to ride in almost any old weather with only rayon stockings to protect my nether limbs. And how I should hate to be driven by a not-very-good rider on a not-very-good and not-verynew motor bike, especially when the traffic is both fast and heavy (as it was this Sunday) and the roads are filmed with black grease (as they were this Sunday). But perhaps it isn't the power of love at all. Maybe the little darling never realises that Tom isn't a Stanley Woods. I hope the garage found their timing gear was mendable both quickly and cheaply; in the 1900 period we could fake them up with a French nail at a pinch."— Ixion.

"There are nearly 407,000 motor cycles in use in England, 24,375 in Wales and 31,076 in Scotland, according to the latest official figures."

"FROM 1928 TO 1938, the total number of vehicles in use in Britain has risen from 2,052,539 to 3,093,884."

"THERE ARE NEARLY one and three-quarter million cars in England, over 81,000 in Wales, and over 147,000 in Scotland."

"IT IS ESTIMATED that there are 43,000,000 cars in use in the world."

"ONLY THREE ELECTRICALLY propelled private motor cars are in use in Britain."

"THERE ARE APPROXIMATELY 4,400 electrically propelled vehicles, 990 steam-driven vehicles and 8,600 diesel-engined vehicles now in use."

"THE TOTAL DEPTH drilled in Britain by oil exploration firms in the past two years is over 12 miles."

"WN JORDAN, WHO WAS injured in a collision with a car in the 1937 International Trial, was awarded £5,092 damages at Birmingham."

"TRIUMPH'S IN A recent week received orders from Holland, Sweden, Germany, Canada, USA, the Argentine, Australia, India and Java."

THE SOUTHERN CROSS MCC of Adelaide staged an 'English-style' trial. The correspondent added that in case the Brits thought of their Aussie cousins were 'Promenade Percies' a more typical Southern Cross event was a non-stop 24hr, 500-mile blast through the bush.

"ONLY TWO TYPES of light commercial vehicle will be produced under Germany's rationalisation scheme for the motor industry. One will be a three-wheeler, and the other a four-wheeler. Both will have a 500cc engine."

"BLOSSOM-TIME WILL SOON be here. Every year apple, pear, cherry and plum trees transform our countryside into a blaze of pink and white. A two- or three-hundred mile week-end in blossom-time will be something to be remembered, and if you did lay up your machine for the winter it will be an exciting return to the joys of the road. And if you rode all the winter, and like most of us enjoyed beating the elements at their own game, so to speak, then equally you will enjoy this colourful emblem of softer conditions ahead. Many a Welsh valley loses its expansive austerity at this season, when blossom nears the focus of interest and provides a sharp contrast between it and the dark hills beyond. Almost every Cheshire farmhouse becomes garlanded with apple blossom and pear, as you will see if you take the trouble to explore some of the more remote lanes. If you want to see great masses of blossom, then that delightful stretch of country from Evesham across to the Rivers Wye and Lugg will provide perhaps the finest sight in the country. ETWB"



"Old apple trees near Cleobury Mortimer, Worcestershire."

"IF YOU WISH TO behold one of England's most superb displays of blossom, visit Clifton Downs, above the gorge of the Avon at Bristol, when the may trees are fully out. If you prefer the daintier but less gorgeous shows provided by hedgerows, hie yourself westwards when the primroses, bluebells or pink campions are in season, and dive down a deep lane off any Devon or Cornish main road. These are natural displays. The Worcestershire blossom shows, recommended by a contributor, depend too much on the fruit farms, where the trees are planted in regimented order."—Ixion.

"A WOMAN WAS fined £50 for attempting to bribe a driving test examiner."

"I LIKE RECEIVING LETTERS from Mr Prothero, secretary of the Devonport Club. His enthusiasm for club life is so infectious that I wish I could pass it on to you. In a recent letter he tells me that members of the club had an afternoon run to Penzance and back, some 180 miles, during which the weather was far from pleasant, yet the turnout of riders and passengers was very good. The Club has been presented with a challenge

trophy from the South-Western Area Motor Cycling Committee as a mark of appreciation 'for the help, advice and experience that your club so generously gave when competitive motor cycling was introduced into the Army'."

"NOW THAT THE Army has shown us it can produce good trials riders—have you studied the results of the recent open trials?—it seems that it is next to break into the racing sphere. The 42nd East Lanes Terriers are making a start by building their own grass-track on a field which has been rented near headquarters. Who will prophesy the date when the first Army man competes in the TT? In addition, these Terriers have formed a club, each member paying 3d per week. They hope soon to have a fund which will pay for any damage done to their machines in sporting events."

"IN A LETTER FROM 'down under' an enthusiastic reader tells me that club life in Western Australia is really flourishing and that in Perth alone there are seven active clubs all with fairly large memberships. He says that great interest has been caused by the correspondence in The Motor Cycle on speeds attained in Australia. In a cutting taken from a local newspaper there is a report on a flying quarter-mile speed trial. Eight machines are reported to have covered the quarter at over 100mph with a half-mile run to get up speed, and best time of the day was made by J. McPhee on a home-built Harley-Davidson on which he recorded nearly 114mph. Perhaps the weather has something to do with these speeds, for the maximum temperature during the, meeting was 99°!



"First and second men home, WA West (497cc Ariel) and KD Haynes (349cc Triumph), chase up one of the many steep hills on the course, while the crowd watches in safety behind the fences."

"A HUGE CROWD of spectators braved a biting east wind to see the annual Hampshire Grand National organised by the Ringwood Club. They were well rewarded, for the racing was very close and the excitement sustained to the very last lap. The usual course at Avon Castle, near Ringwood, was used, but this year the organisers had erected barriers at the danger points, and the spectators were kept well clear of the course. The circuit contains several steep hills, innumerable bends, switchbacks and muddy hollows, and is in every way a scramble course that calls for skill, stamina and pluck from the riders. Twelve laps had to be covered, and the select band of 28 competitors were sent off en masse. Shortly before three o'clock they were all lined up. and at the fall of the flag they had to run to their machines, start them by pushing or on the kick-starter and get away. KD Haynes (349cc Triumph) made a meteoric start. He leapt on to his machine, and in the one movement of bringing his leg over operated the kick-starter and then the gear lever. He was away before half the field had even got astride their models. However, the faster men were not far behind, and WJ Stocker (348cc Ariel), AJ Parsons (497cc Ariel), WA West (497cc Ariel), and EG Wilmot (347cc AJS) were soon in full pursuit. Haynes held his lead for a lap, but the second time round his engine fluffed on the steep hill soon after the start, and he was passed by Stocker before he got into his stride again. Now the five leaders were all bunched together, and the pace was terrific. On the next lap Haynes again had trouble on the hill, and this time West, Wilmot and Parsons went by. Sixth, and leading the 250cc class comfortably, was FR Simon (249cc Triumph), but his luck was not to hold. On one of the steep descents the rear brake rod of his machine broke, and Simon had to grab the front brake. The wheel locked, and the rider dived over the handlebars and spreadeagled in the bracken. As a final touch the machine followed and caught him a sound thwack across the rump, which put paid to his racing for the day. With Simon out, C Harper (249cc Triumph) took the lead in the 250cc class, hotly chased by AJ Whistler (246cc AJS). Already the rest of the field were beginning to thin out. At one mud patch at the bottom of a sharp descent there were frequent spills among the men who were not used to this type of going. R. Pope (348cc Velocette) fell twice here, and AG Briggs (349cc Triumph) lost control of the model on one lap on the ascent on the other side. One of the neatest at this point Was WV Argent (347cc AJS), who was fast down the hill but still able to pick his path through the mud at the bottom. However, all others were overshadowed by the five men who were scrapping for the lead.



"WJ Stocker (348cc Ariel) and WA West (497cc Ariel) thrilled the crowd with a terrific duel for ten laps. Here they are charging over the crest of a hill neck and neck."

Stocker made the most of his advantage, and hung on to the lead for several laps. Meanwhile, West was only some twenty yards behind, and riding a safer race than usual. Wilmot and Parsons were scrapping together only a little way behind these two, and Haynes would, draw up behind them on each lap only to fall back again at the steep hill. On the ninth lap all five came round closer together. Haynes was obviously out for blood, and at the valley with the muddy bottom he opened up on the descent, roared through the mud at speed and overtook Parsons on the hill. Wilmot was the next man, and he chased and caught Parsons at the switchbacks. These two, Haynes and Wilmot, then roared along neck and neck, thrilling everyone as their machines jumped in the air at the crest of each rise. Neither would give way, but as they disappeared towards the start Haynes just managed to slip in front of Wilmot on a muddy rise. Stocker and West were now only yards in front of Haynes, and the speed of all five men increased visibly. With only two more laps to go West made his big effort and passed Stocker to take the lead. As they came round for the last lap, West, Stocker and Haynes were all bunched together and going like fury. People rushed in from all the vantage points to see the finish. But they were robbed of excitement, for West went wide at a corner at the back of the course. It was Stocker's opportunity and he went to overtake inside, only to strike a hidden stump with his brake pedal, which twisted round and locked the wheel. West recovered before Haynes could pass and they left poor Stocker frantically dragging at the brake pedal. Haynes then could not challenge West, and the latter almost ambled over the line with Haynes about twenty yards away. Third was Wilmot, and fourth poor Stocker, who showed his great sportsmanship in crossing the line all smiles in spite of his bad luck. Twelve other men completed the course—a high percentage in view of the

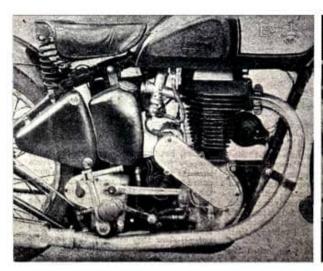
strenuous pace set by the leaders. C Bailey (248cc Ariel) was flagged off after eleven laps as the third 250 to finish."

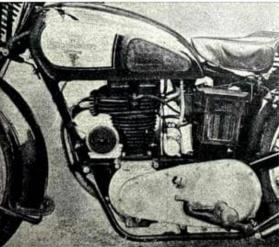


"Total enclosure of all moving parts is a feature of the Excelsior engine. The appearance is further improved by the very handsome petrol tank."

"THE RACING KNOWLEDGE gained by the Excelsior Company is reflected in many ways in the 348cc ohv Warrior. For example, the riding position is of the type that makes the rider feel he is part and parcel of the machine, while the road-holding and steering are first-class. The distance between the saddle and the handlebars is greater than with the majority of modern machines, and as the bar has a forward bend a straight-arm riding position, which was found extremely comfortable for open-road work, is provided. Both the brake and gear pedals are very well placed. The brake pedal has an adjustable stop and the pedal comes immediately beneath the rider's toe. Gear changing was simple at all times, for the movement of the gear lever is short and the lever can be adjusted so that the rider does not have to move his foot from the rest. The machine tested was by no means new, and this probably accounts for the fact that the throttle was inclined to be stiff. The other controls were smooth and light in action. So far as performance is concerned, quite the most outstanding feature of the Excelsior was its pulling power. The engine is of the long-stroke type (92mm) and it would slog at low speeds as only this type of engine can. For all normal work out of town the gear box could be forgotten, for in top gear (5.65 to 1) the machine would romp up hills that would cause the majority of 350s to call for a change down. Pebblecombe Hill, in Surrey, which has a maximum gradient of 1 in 5, was climbed very comfortably in third gear (7.36 to 1), and on one clear run the machine breasted the hill in top gear with the rider using the ignition control. An ethylised fuel was used throughout the test, and even under these extreme conditions the engine failed to pink; nor did it do so at any time during the test. Apart from hill-climbing, this slow-speed pulling gave the machine good acceleration at low speeds. In third gear only six seconds were required to accelerate from 13 to 30mph, while in top the model would accelerate away from its minimum non-snatch speed of 15mph to 30mph in fewer than nine seconds. Obviously, with these characteristics the Excelsior was pleasant to ride in congested streets, for there was no need for continual gear changing. On the open road cruising speeds of up to 50mph were used almost continuously. Higher up the speed range some vibration was noticeable, but at normal speeds the unit was quite smooth. In the maximum speed tests the Excelsior attained a

timed speed over the quarter-mile of nearly 70mph, and the mean timed speed was 67.9mph.





"Maintenance has been studied in the design, and to improve accessibility the offside rear cylinder base nut has an extension. The downdraught carburettor and heavy-gauge flexible oil and petrol pipes are interesting items." (Right) "Features noticeable in this view are the long brake pedal with its adjustable stop, the prop-stand and the separate magneto. The dynamo mounted in the rear engine plates is driven by a chain enclosed in the primary oil-bath."

Throughout the range the speedometer was found to be accurate. Maximum speed in third gear was 54mph and the highest useful speed in this gear about 50mph. From a standing start acceleration was good. A speed of 50mph was attained in third gear in well under a quarter of a mile, and at the end of the 'quarter' the machine reached 55mph in top gear. All the moving parts of the engine are totally enclosed. The unit was found to be pleasantly free from mechanical clatter, only slight piston tap being audible at certain speeds. The valve gear and transmission were noticeably free from noise. The exhaust note is well subdued, and at no time did it become loud enough to cause offence. As previously mentioned, the slow running was particularly good, but, owing to the stiffness of the throttle, accurate control at small openings was difficult, and it was found advisable to retard the ignition when coming to a standstill in traffic; the engine would then run smoothly and slowly. Starting was extremely easy. The carburettor had to be flooded whether the engine was hot or cold. No special precautions were necessary and the engine was not prone to kick back. With the type of footrest hanger fitted the rider could not get the full movement on the kick-starter when wearing waders; a shorter hanger would immediately overcome this difficulty. An outstanding feature of the Excelsior was its steering and road-holding. It has already been said that the riding position makes the rider feel part of the machine, and this position gives an immense feeling of confidence and complete control. As a result, the Excelsior could be swung round corners effortlessly, and the handling was delightful under all conditions.

Wet roads were not encountered during the test, but the Excelsior was perfectly stable when crossing dry tramlines, and there was no sign of the waver or kick that usually means difficulties when the roads are wet. At low speeds the steering was light enough to make traffic tiding easy, while on the open road the machine was perfectly steady. The steering damper was used only when the maximum speeds were being taken. The front forks have a very wide movement and are fitted with a hand-controlled damper. They were found to be well up to their work and they never clashed or bottomed. although only light damping was used throughout the test. Both brakes were excellent. Either of them would bring the machine to rest from 20mph on a 1 in 5 descent. Owing to the convenient position of the pedal the rear brake could be used accurately and the wheel was never locked inadvertently. In the crash-stop tests the machine was brought to rest from 30mph in 38ft. Although the machine is reasonably priced its equipment is particularly complete. Apart from such features as the primary oil-bath, adjustable brake and gear levers and total enclosure, there are many interesting details in the design. Both magneto and dynamo chains are fitted with automatic tensioners, petrol and oil pipes are flexible and there is a separate petrol tap for each side of the tank. To sum up, the Excelsior Warrior is a lively 350 with very good pulling powers, excellent steering and brakes, and equipment that is lavish in its price class."

"THE other night I dined with three old cronies, who like myself learnt to ride in the year dot. We got talking about our crashes in the prehistoric era, and we all agreed that our most frequent spills had been to the outside of sharp corners. You modern riders with your tarmac surfaces and long-radius bends simply cannot imagine what the pioneers suffered. I throw my mind back, and instantly see a road heavily pot-holed at all corners and wherever trees overhung it (the effect of drips), scored with two parallel ruts from London to Edinburgh or anywhere else, and stained with brown or green. With brown along the middle because that was where horses trod; with green any old where, because cows meander. In my very salad days I got a firm to build me a motor bicycle with a 30in. reach from saddle to pedal. Its centre of gravity was probably about 2ft. above ground level; and oh, boy! did she hurl herself outwards on a sharp bend? And now I sit on a grass bank in the Island, and see Stanley Woods with an ultra-low cg tackle an equally sharp bend at round about 60mph. But I can lay my hand on my heart and claim that I have never yet spilt the plot through centrifugal force pure and simple. It was the front wheel hopping on the pot-holes of the outer curve, plus centrifugal force, which occasionally unseated us so very painfully."—Ixion

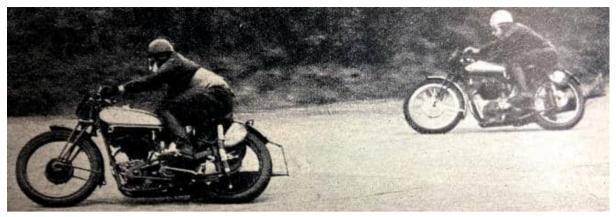
"NO ONE WHO VISITED BROOKLANDS on Saturday can be in the slightest doubt regarding the popularity of The Motor Cycle annual Clubman's Day meeting. An entry of 497 had been received for the Clubmen's events, representative of clubs in every part of the country, and, in spite of a doubtful looking day, there were very few non-starters. The same applies to the BMCRC members' events, every one of which was well supported. And as for the spectators, once again they rolled up in their thousands and packed three

and four deep at every vantage point. Long before the proceedings opened queues formed at every entrance, and the car parks were choked with motor cycles of every size and description. Such enthusiasm merited a good afternoon's racing, and few will complain that on this score they did not get full value for their shilling admittance fee! Shortly before 1.15pm, when the kilometre trials were due to be



"Before a packed grandstand, the riders line up for the start of the first five-lap Mountain race for BMCRC members. Prominent in the picture are No 3, J Lockett (502cc Norton) and No 4, LJ Archer (348cc Velocette)."

run off' there was a sudden shower—nothing very serious, but it tended to make the track slippery in places. However, all fears that the meeting might have to be postponed were dispelled when dead on time the piercing note of a high-frequency horn warned competitors in the trials to get ready. No fewer than 146 clubmen shad entered for this event, and a fine (and noisy!) show they made as they lined up at the Fork preparatory to their swoop round the Members' Banking and down over the measured distance along the Railway Straight. Most of the machines had ribbed front tyres, while another noticeable feature was the absence of dynamos—where these instruments were normally in unit with the magneto. Two at a time was the order, and the machines (as in all the Clubman events) had to be started on the kick-starter. Few had difficulty in this respect, but a notable exception was WG Edwards (348c Norton), who just couldn't



"A Norton duet in the first five-lap Mountain race for BMCRC members. GG Murdoch (348cc Norton) leads J Lockett (502cc Norton) into the Members' Hill bend."

get his engine to fire by means of the pedal, although it started at once when he pushed it! In spite of the wet state of the track, some very high speeds were recorded, the best being the 112.98mph by G Brown (998 Vincent-HRD). [We'll meet George Brown again, on a brace of world beating Vincents—Ed.]...Last on the programme was yet another five-lap Bemsee handicap. Speeds were noticeably higher in this event, and the result was by way of being a surprise. JH 'Crasher' White was on the 29sec mark with his old 1933 Manx hack-bus on which he had not performed too brilliantly at the previous meeting. This time he had detached the dynamo portion of the Magdyno, and, judging by the way the old bike went, he must have also breathed rather heavily on the engine! Whatever the cause, 'Crasher' went like the wind and crushed all opposition by moving from sixth to first in a single lap. He then went on to win easily at 66.86mph from FW Fry (348cc Velocette) and MRL Tuffnell (499cc Vincent-HRD). Thus ended yet another extremely successful Clubman's Day. No praise can be too high for the organisation, which, in spite of the difficulties occasioned by such a huge entry, was perfect throughout. Good work, BMCRC!"



"RJ Wilkerson. (348cc Norton) of the Hillingdon and Uxbridge Club, who won The Motor Cycle Cup for the best out aggregate performance by a clubman. He was first in the Clubman's two-lap outer-circuit handicap at 84.37mph, and second in the three-lap

Mountain handicap." (Right) "Looking down on one of the clubman's Mountain events. These spectators found a new and intriguing view-point—the Brooklands test hill."



"A corner of one of the car parks showing the tightly packed machines of some of the many thousands of spectators. Scenes like this are a feature of Clubman's Day at Brooklands."



L-R: "Did I tighten that steering damper?" R Fiddler has a little trouble with the steering department in the Clubman's 350 cc outer-circuit trial." "D Hedderwick (348cc Velocette) takes a peep over the top of the banking—" "But decides it's safer down below!" "0-oh those wet patches! Noel Pope has a few hectic moments as he hurtles his big supercharged Brough Superior round the Outer Circuit at over 115mph".

"SELDOM HAS THERE BEEN greater activity in the motor cycle world. Two big officially observed tests have just been completed; a third is well under way. The entry list for the Easter Monday road-race meeting at Donington was full as early as last Friday. Already there are over 400 in the list of competitors for the Land's End Trial. And for Club-man's Day at Brooklands on Saturday week the number last week-end was no fewer than 366. These facts alone show the keenness and enthusiasm that exist. They reveal that the motor cycle world is 'alive' to a degree almost without parallel. On the sporting side it has to be remembered that there are no monetary incentives—no payments of 'bonus' such as artificially swelled the entry lists a dozen years ago. To-day we are happy to say it is a case of sport, not cash."

Here are some excerpts from the reports of the reliability runs 'Nitor' (for it was he) referred to, conducted by BSA, Panther and Triumph. As I have an M21, a Redwing Panther and a Triton powered by a T120R Triumph twin in the garage I confess to feeling rather proud of all three marques—Ed.

## **BSA Silver Star and M21 outfit**

"ROUND THE COAST of England and Wales in 85 hours on two standard motor cycles

taken straight from dealers' showrooms—this alone sounds interesting. The officially observed test of two BSAs, held last week, is interesting, absorbingly so. The two machines, handled by teams of riders, ran continuously day and night. They covered 2,500 miles in weather that included snow, hail, rain, sleet and gales. They were driven by men who became utterly tired out—who knew that they must hurry to catch their connections following the next changeover, and who, in the case of one team, had only two hours' sleep throughout. The machines were thrashed; towards the end, owing to the tiredness of the riders, almost unmercifully. This, however, is only part of the history of the strenuous test. En route the machines made 25 ascents of Bwlch-y-Groes, the lengthy Welsh test hill, which by popular vote among famous trials riders is the most difficult hill in the country normally tackled by tourists. On this 1 in 4.9 hill alone, the two machines each climbed the equivalent of over 31,000ft, or some 2,000ft higher than the highest mountain in the world. In addition, the machines travelled for one hour in top gear with the gear pedals removed—from Victoria, London, to Brooklands; covered, in one case, over 1,000 miles without the engine being stopped, and in the other some 1,400, did 100 miles at speed at Brooklands, were officially timed over the flying quarter mile, and climbed the 1 in 4 Brooklands test hill 100 times in 89 minutes. Seldom has there been such a gruelling test as this official ACU certified trial entered by BSAs and the producers of the oil, Mobiloil D. The two machines entered were a 500cc solo Silver Star and a 600cc side-valve sidecar outfit. In order to prove that the machines were standard in every way—were production models that had, in fact, gone far beyond the factory's control—the BSA company handed the ACU a list of some 800 dealers and authority to take the machines from whichever of the 800 dealers they liked. Mr EB Ware, the ACU official, took the Silver Star from the stock of Faulkners, of Oxford, and the M21 side-valve from that of Percy Kiln, of Southsea. In the case of the former, the engine when started up in the showroom emitted clouds of smoke, a point which Mr Ware noted in order to tell the future rider that it was only fair in view of the circumstances that the plug should be checked before the test started. Both machines were taken by train to London by Mr Ware, who on Monday of last week had them transported by lorry to Rex Judd's at Edgware, where the sidecar was fitted to the sidevalve machine and the oil tanks drained, flushed out with flushing oil and refilled with Mobiloil D, the oil officially entered for the test. The side-valve already had a sidecar sprocket fitted, so the only other work was to fit the licences, see to the number plates, clean



"The start from the ACU Offices, Pall Mall."

the plug in the solo and check over the various nuts and bolts. Next day, at 10.15am, the two machines set off from the ACU offices in Pall Mall. The test had started. W Johnson drove the M21 sidecar outfit and JH Amott rode the solo. In the sidecar was Mr Ware. Those who know London need no reminding of the traffic congestion in the middle of the morning. The two brand-new machines caught the traffic at one of the worst times of the day. Down Regent Street, across Oxford Circus, through Camden Town and Finsbury Park. Had the engine of either machine been stopped momentarily it would have been no less than might have been expected. BSAs were asking a lot in attempting to do the test without stopping the engines—specially prepared machines might be all right, but here were two motor cycles that had been in agents' showrooms, were absolutely new, and had not even had their fuel tanks swilled out...At 9.30 am, after the rear chain of the solo had been adjusted in case the fling at speed should cause it to jump the sprockets, the two machines set off on their 100-mile high-speed test. From a standing start the Silver Star lapped at over 70mph. The second lap was at 76.03mph, and the machine went on non-stop to average 73.65mph, covering the 100 miles in lhr 21min 27.7sec. The side-valve sidecar outfit lapped consistently at 48 to 50mph and put in one lap at 50.31. The average speed for the 100 miles, including a stop to refuel, was 48.43mph. Then the machines were officially timed over the quarter-mile. In this the figures are 78.95mph for the Silver Star and 53.57mph for the M21 and sidecar. Finally came the hundred ascents of Brooklands test hill, which starts with a gradient of 1 in 8,

steepens suddenly from this to 1 in 5 and ends with 154ft of 1 in 4. In each climb there is an ascent of 683ft. The machines romped up with the greatest of ease. Up they went, turned round at the top, braked hard at the bottom, turned round and set off again. In 89 minutes the two machines had completed their one hundred climbs; they had completed the whole of their ambitious observed trial, except for the final official examination which took place last Monday. The Silver Star was in magnificent condition throughout—not a sign of wear and only, a slight deposit of carbon. Barring the results of the petrol starvation, namely, signs of the piston having picked-up and the rings stuck, the side-valve engine was also in an excellent state."

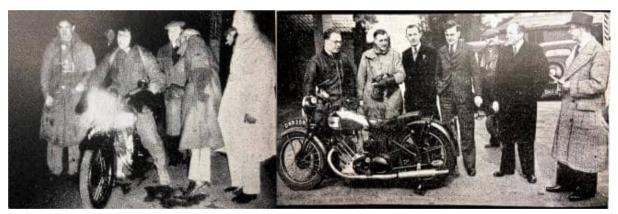


"2am Land's End: Engines still ticking over, the riders take a moment's breather before starting on the South Coast leg of the route. Bert Perrigo, team manager, on the right." (Right) The two Beezas slogged up the Brooklands test hill 100 times.

## **Panther Redwing Model 100**

""IN THE GREY HALF-LIGHT of last Monday morning a knot of people were to be seen at a filling station alongside the Barnet By-pass. Among them were Mr EB Ware of the ACU, the managing director of Panthers, Jimmy Simson, Jack Watson-Bourne and his wife, who is known in the motor cycle world as Miss Marjorie Cottle. Nearby, and presumably finishing his breakfast, was Kenneth Bills. What was it all about? This became obvious when soon after half-past five a 600cc Redwing Panther was wheeled out of a lock-up...The specification throughout, it was stated, was standard except that inside the filler cap of the fuel tank there was a gauze-type strainer such as is fitted to the export-model Panthers. A wire ran through special holes in the cylinder and cylinder head fins, had been twisted over and then sealed with an ACU official lead seal. In similar fashion the cylinder was sealed to the crankcase...Soon after a quarter to six Kenneth Bills emerged from the house alongside the garage, looking chubby, not to say rotund, in his many garments. Rubber Wellingtons, a leather flying helmet and a Barbour Thornproof' International suit completed his kit. No sooner had he put on his outer garments than he was in the saddle, and Mr Ware had given the signal. A scrunch in engaging bottom

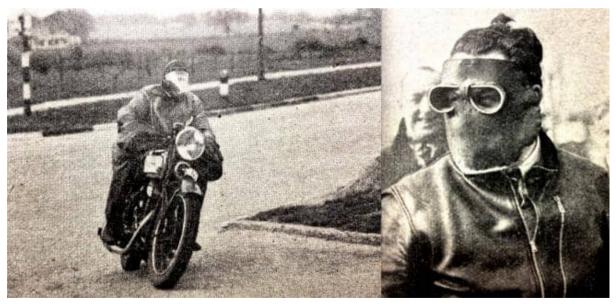
gear. Beyond that only an effortless rustle as the machine accelerated and disappeared from sight in the direction of Welwyn, Biggleswade, Grantham and Doncaster...10,017 miles in a net running time of 209 hours 49 minutes. This was the achievement of the 600cc single-cylinder ohv Redwing Panther which completed the road section of its officially observed test at 2.37pm last Thursday. In a little over ten days it had covered what would be at least a year's mileage in the hands of the average user—not only that, but it had done so at an average speed exclusive of stops, refuelling and changing riders, of no less than 47.74mph. Under fair weather conditions this speed would have been remarkable, but when it is remembered that the certified test went on day and night and the riders encountered snowstorms, rain, hail, sleet, fog and gales it is little short of astounding...there were three official observer-riders, HC Lamacraft, KG Bilbe and Kenneth Bills, and, as a reserve, SF Board. Their task was to ride the machine and keep official account of all involuntary stops and all work carried out on the machine. Until Sunday of last week the first three rode the Panther in turns, each covering the journey from. North Mimms, on the Barnet By-pass, to Leeds and back, a distance of 371 miles. The weather was so atrocious, and the task as a result so gruelling, that on the Sunday SF Board took a turn, and up to the finish last Thursday each man had one spell of 371 miles and then three spells free. How bad the conditions were can be gathered from the fact that Bills' face was frostbitten. In consequence of the weather he developed a special face-mask. This started with being a pair of mask-type goggles surrounded by rubber sheet ing; it was improved almost day by day, and ended with a flannel lining, wire stiffeners and an almost professional degree of finish. Lamacraft, too, felt the effects.



Kenneth Bills sets off on the first lap of a 10,000-mile run on a brand new Redwing Panther. (Right) "The great test is over! Lined up behind the machine after the 10,017 miles are (L-R) Kenneth Bills, KG Bilbe, HC Lamacraft, SF Board (the four riders), Mr Marians (managing director of Panthers), and Mr Wildblood, the ACU official in charge of the test."

Half-way through the test when safely in bed after one of his daily 371-mile runs he was awakened by his wife saying, 'You are twisting my wrist!' Apparently he had been using it as a twist-grip! 'As long as you don't begin kick-starting,' said Mrs Lamacraft. Towards

the end of the test the weather improved. While on Monday of last week Bills, who set off from North Mimms, soon after noon had heavy rain the whole time, Lamacraft, who was next, had only showers, and so did Board and Bilbe. Rain and mist were Bills' lot on his next trip. For the last three journeys the weather was fair—in fact, excellent but for mist in the early morning. One lengthy delay occurred. This happened at 10.30am on Wednesday of last week. Lamacraft was riding the machine. The engine locked up. He thought it must have seized. After tugging at the back wheel he found that he could move it a little. Then he saw a link or two of chain hanging down beside the Dynomag. What had happened was the dynamo chain had broken. This removed, he tried to start the engine. The locking-up, however, had caused the ignition timing to slip. With the aid of an AA scout he re-timed the engine and set off again after a delay of an hour and three-quarters. Lamacraft was unlucky in another direction. He was stopped for exceeding the 30mph limit at Retford—the limit begins earlier than he imagined to be the case. The last trip of all fell to Bilbe. So much time had the Panther in hand that it was decided to give it a clean before it checked in at the finish...In view of the high average speed the fuel consumption could hardly be low. The official figure for the 10,017 miles with its 47%mph average was 56.88mpg. Oil consumption worked out at 2,671mpg. Incidentally, the Shell oil, like the machine itself, was undergoing official test. Last Monday the engine was stripped for examination. The general condition was magnificent—there is no other word for it. The only adverse point was that the big-end rollers were chipped; the crankpin apparently had been pulled up too tight when the engine was stripped for measurement previous to the test and, as a result, had pinched the bearing. The carbon deposit was remarkably small; it appeared to be little over  $\frac{1}{32}$  nd thick except around the inlet valve. Thus, except for the issue of the official certificate, ends a most remarkable and exceptionally gruelling test."

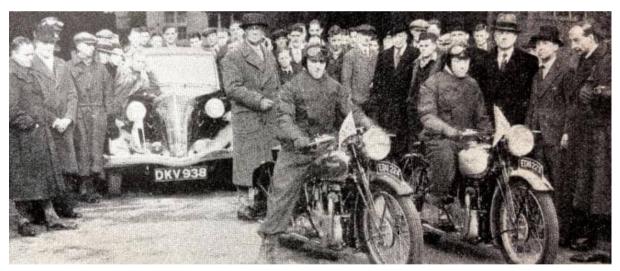


"The Panther, with KG Bilbe in the saddle, swings into the Southern Cross Filling Station

at the end of its 10,017 miles." (Right) "An ingenious face-mask was developed by Kenneth Bills to protect himself from the snow and hail."

## **TRIUMPH Tiger 100 and Speed Twin**

"88.46 AND 84.41 MPH—AT THESE SPEEDS the two Triumph motor cycles, the Tiger 100 and Speed Twin respectively, reeled off their final laps of Brooklands Track in the remarkable ACU-observed test that was brought to its highly successful conclusion last week...the makers had given the ACU carte blanche to obtain them from any Triumph stockist. The Tiger 100, was taken by the ACU official observer, Mr E B Ware, from the stock of George Bryant, of Biggleswade, and the Speed Twin from that of Horridge and Wildgoose, of Sheffield. This done, the ACU transported the machines to the Triumph works at Coventry, where, under the eyes of the official observer, the number plates were seen to, batteries charged, pillion seat fitted ready for Brooklands, the tanks filled up and the machines checked over in the same way as an agent checks a machine over before delivering it. Two other items were that Dunlop puncture seal was inserted in the tyres and one machine had a single red reflector fitted alongside the rear number plate and the other two reflectors. These latter were to enable those in the official Triumph Dolomite car to be able to pick out the machines after dark. The arrangement was that Mr Ware, who travelled in the car with Mr Headlarn, of Triumphs, sat on the tails of the two motor cycles throughout. WJ Nicholls and RC Ballard, of



"Start of the ACU-observed test of two Triumph twins, a Tiger 100 and a Speed Twin. The riders for the 1,859½-mile road portion of the test are WJ Nicholls and RC Ballard. In the background is the Triumph Dolomite car which is carrying the official observer, Mr EB Ware."

the Triumph test staff, rode the machines. The route chosen was Coventry to John o' Groats, John o' Groats to Land's End, Land's End to Brooklands and thence after the speed test to Coventry, where the machines underwent an ACU examination for condition. The two machines averaged 42mph on the road for a distance of 1,806 miles without any preliminary running-in. Perhaps even more notable than the speeds of the

final laps was the demonstration of sustained high-speed reliability. The riders at Brooklands were IB Wicksteed and MD Whitworth for the Tiger 100 and FWS Clarke and Allan Jefferies for the Speed Twin. The world's record for 12 hours in the 500cc class stands at 87.78mph. The two standard Triumph motor cycles averaged respectively 78.50 and 75.02mph for six hours. Not only that, but in one hour the Tiger 100 covered over 80 miles, while the Speed Twin on its fourth hour covered over 76½ miles. It is hard to conceive a more convincing proof of the machines' calibre. Moreover, the test forms a magnificent demonstration of that new motor cycle oil, Castrolaero, which, incidentally, was purchased by the ACU and not in any way supplied specially for the test...when ridden to Coventry they averaged approximately 46mph over the 106 miles to complete a total pf 2,383 miles in the case of the Tiger 100 and 2,362 in that of the Speed Twin...Seldom, if ever, has there been a more gruelling and convincing official test."



During the high-speed blast round Brooklands the Speed Twin covered 76½ miles in an hour; the Tiger 100 completed more than 80 miles.

"THAT THE TT HAS DONE more than anything else to assist and inspire design was a point Mr Edward Turner, managing director of Triumphs, made at a lunch to the riders and others concerned in the recent certified test. He mentioned that as producers of fast sporting motor cycles Triumphs were often asked why they did not show more interest in the TT. The reason was that the races no longer formed an attractive proposition for manufacturers. In recent years they had forced the production of a type of machine no longer practicable for ordinary use. In, say, 1926 and 1927 the position was different, for at least 60% of any given machine was on standard lines. To-day the machines were special from wheel to-wheel, and there was nothing that could be translated into-production machines. 'I do not say that the TT should be banished,' Mr Turner continued. 'I consider that there should be races for stock-type machines. For our part we should be prepared to support such races, and I believe that others would do so too.' From this Mr Turner passed on to other types of event. Trials and scrambles, he said, do not demonstrate the ultimate reliability of the product; the one thing that

does is the ACU certified test. His views on the TT are interesting and are very much in accord with what we have said."

"YOU WILL HAVE SEEN some facts and figures showing the kick in this game of ours. If you were at Brooklands for *The Motor Cycle* Clubman's Day you will have seen what is meant! In spite of dense mist early in the day, and of rain later on, thousands flocked to the Track, and on the damp, slithery concrete, Noel Pope lapped twice at over 115mph on his 'blown' Brough Superior, a clubman on a big-twin Vincent-HRD did 113 over the kilometre, a machine tuned by a member of the fair sex won a race at 99mph, Miss Wallach gained a Gold Star on a 350cc Norton at 102mph and many a clubman lapped the Mountain circuit with all the dash and skill of a Brooklands habitué. I give absolutely full marks to the clubmen for riding. There was a number of lads in the Mountain races who would put up a very useful show in the Island."

"THE WINNER OF New Zealand's ninth TT Race, organised by the Auckland MCC, was L Perry (Velocette), with AJ Dean (Levis) second, and JH Dale (BSA) third. The Wakefield Cup for the fastest lap was won by LE Dixon (Levis)."

"ITHINK THAT the power-weight ratio is an important factor in fuel consumption. In the old days one could, and did, get 150mpg with a 500. I had a late 1914 BRS Norton (single gear, Phillipson pulley) which consistently did 145mpg. I got the same figure with a 1915 425cc 60° twin Royal Enfield. I fitted both these machines with a Binks 3-jet carburettor—a wonderful instrument once it was correctly tuned. In case anyone points out that this carburettor was not made in 1914, I would mention that I had the Norton second-hand in 1916. If memory serves me, Ixion, in the Scottish Six Days Trial of 1922, got somewhere about 150mpg while reporting the trial on a 500cc Sunbeam. This, of course, would have had a three-speed gear box. I fancy he used an extremely small jet, a No 27, I think he said, in his Amac (?) carburettor—it was before the days of flowmetered jets. Does the modern 500cc single lose much by petrol blow-back? My recollection is that a large fine-mesh gauze over the carburettor intake generally tended to improve consumption.

## JM Philpott, Gloucester."

"MENTION HAS BEEN MADE of an attempt to get Parliament to ban the use of motor vehicles on unmetalled roads. This is surely a case where we should contact our cycling brethren in an attempt to get the proposed Act shelved. The future of all trials sport depends on such a Bill being thrown out by our legislators. Such a Bill would only be an embarrassment and a nuisance to many hundreds of country folk who use such byways for getting to and from work on motor cycles. Cyclists might well ask that we assist them in a similar way by getting a clause in the 'Access to the Mountains' Bill cut out. This clause forbids cyclists to use the footpaths, thus preventing journeys across mountainous country from one valley to another, and making it necessary for them to

leave their cycles and kit behind.

AD Ost. Chelmsford."

"I SHOULD BE GRATEFUL if you would allow me a small space to voice my opinion in the single-vs-multi discussion. All the machines I have ridden, up to my present mount, were singles, and though some were better than others, they all gave more than their fair share of trouble. I was on the point of giving up motor cycling because of this when I was lucky enough to get a ride on a well-known British four-cylinder machine. I was so impressed by its dynamo-like smoothness and quietness that I bought one, and from that day I have had no trouble at all. I must also add that my present mount does not get a fraction of the attention that the singles had. I cannot claim so long a riding experience as Mr Eceleshall, but if he has never ridden a multi he ought to add this to his experience. Then, as he claims to have 'feel', he might revise his ideas on motor cycling.

'Four Square Deal', Coventry."



"A HUGE ENTRY, even larger than usual crowds watching on the observed hills and weather which was as excellent as, in view of the weather forecasts, it was unexpected—these are a few salient points of the Land's End Trial, the Motor Cycling Club's famous Easter event. While the trial was very much on the lines of those of the recent past, this year standard tyres had, of course, to be used. However, few competitors seriously missed their knobbly treads of previous years, for there is probably no course better suited to standard tyres than that of this 340-mile, 18½-hour event. No longer is the trial the 'London-Land's End'. For some time now the MCC has allowed competitors in its long-distance events to choose their starting point. They could start from Virginia Water, Stratford-on-Avon, or Exeter, and, except for one intermediate time check, it was a go-as-you-please run to the breakfast stop at Taunton. 'Breakfast', so far as the earlier men were concerned, is something of a misnomer, for, starting around 8pm last Friday, they were due at Taunton soon after 1am! However, with 247 motor cyclists in the programme, there were some who were not 'breakfasting' until 3.30am, while the last of the 212 cars was not due until after 7am. The huge

cavalcade, 459 strong, was 180 miles long with six hours between the passage of the first man and that of the last! The night run was expected to bear a strong resemblance to that of the winter trial. To everyone's delight it proved fine and reasonably warm, with stars out and quite a powerful moon. The conditions could hardly have been better. A mere 120 miles, and the competitors from the three starting points converged at Taunton, where breakfast was waiting at Deller's. This devoured, the trial proper began. The route led to Williton and to the outskirts of Porlock. Here the solos, sidecars and three-wheelers had to turn left in order to tackle Doverhay, while the cars went straight on to link with the motor cycles at the top of Porlock. Even at 3 o'clock in the morning there were scores of spectators on the high banks that form natural grandstands on the steep S-bend of Doverhay. By 3.30 the crowd had grown to hundreds. It is doubtful whether there have ever been so many spectators...The reddish-earth surface had been well bound by rain that fell earlier in the week. Obviously, there would be plenty of wheelgrip. The difficulties were solely the long stretch of 1-in-4 gradient, the steep double bend, and the presence of a few minor rock outcrops. The hill was in better condition than usual, and seemed even wider than it was last year.



"E Travers (499cc Rudge sc) restarting on Bluebells Mine. As usual, thousands lined the hillside of the famous Cornish test hill."

However, tackled in the light of a head lamp in the early hours of the morning, the hill is a far from simple proposition, especially half-way through a very long run. Soon after 3.40am there was a stream of light flowing up—yes, in this case 'up'—the valley. The

first competitors were climbing the lower reaches to be stopped and restarted about 150 yards before the right-hand hairpin, the first part of the S. Leading the way were 23 solo competitors who had started from Stratford-on-Avon. First was HH Bray (346CC Rudge), who went hoppity-twitch over the rocks in between the bends and disappeared with a workmanlike climb to his credit. The next man, F Bray (346CC Levis) rammed the bank just above the first hairpin—an example which later was to be followed by dozens. Easily the best of the early men was J Basnett (247CC Levis). H Dayey (799cc AJS) had twin head lamps: acetylene in the normal position, topped by a not very potent electric one. Barring a bit of swervery at the second bend, he made an excellent climb. JW Bevers (596cc Norton sc) led the passenger machines. He chuffed up in perfect touring fashion, using exactly the right path. GA Holland (Triumph Twin sc) also toyed with the climb, but FW Osborne (592cc Levis sc) stopped even before getting to the first hairpin. With his 1,324cc BSA three-wheeler sounding as if it had only a two-stroke engine (there is a two-stroke driving the rear wheel), EF Cope shot up the hill with the greatest of ease...Rumour had it that the Army riders had been advised to take the hill really fast. Quite why, in view of the hairpin bends, the Dame failed to relate. Anyhow, from now on there were to be speed efforts. 2/Lieut JD Williams (490cc Norton) gave a rodeo performance and nearly collected both banks. L/Bdr McLeod was even more hectic. 2/Lieut MCW Dumeresq was also fast, but apparently his gear came out—anyhow, he duly stopped...It was now nearly daylight. Up came a trio on their pilot jets to make as neat climbs as any in the entire entry: JW Coad (498cc Vincent-HRD), PC Blake (499cc Sloper BSA), and F Blake (498cc Vincent-HRD). Then T Pethick (498cc Triumph) took the inside of the bend, but by opening-up at the crucial moment got away with the almost impossible. Both CT Cawsey (499cc Royal Enfield) and HS Endean (348cc BSA) struck rock outcrops with their front wheels and, not doing so squarely, duly sat down. For skilful handling of the throttle JC Hurn (Tiger 100 Triumph) took the palm, while almost equally outstanding among the sidecar men was WA White (498cc Excelsior Manxman sc). Both BQMS Mackay and Sgt G. Mackay (490cc Nortons) were much too fast—one smote



"GA Holland (497cc Triumph sc) climbing Hustyn Hill, near Wadebridge. Note how the passenger is leaning towards the rear wheel in an endeavour to assist wheelgrip."

the bank and the other hurriedly sat down. Then D Watling (248cc Triumph) stopped after much pinking. HN Toomey (990cc Brough Superior) woffled up on the pilot jet in perfect style, but J Harper (990cc Matchless) went zoonk into the bank—a real pity-thefront-forks zoonk. AC Hoskins' climb on a 1,000cc Ariel was a smooth 'glide'. An old 349cc BSA in the hands of RC Halls climbed effortlessly, while another old mount and its rider—JMP Masterman (588cc Norton)—well deserved their claps for a perfect show. After more speed attempts with the inevitable results Lieut RCK Money (499cc BSA twin) took things at a reasonable pace and, standing on the rests, made one of the best and neatest climbs of the day. AHAJ Bowerman (499cc Enfield), in spite of distracting catcalls from friends among the crowd, was also very neat... After much crabbing of his 990cc Matchless outfit WG Knight shot across the road and perched on the bank at an angle of about 45°; the passenger finally slid out backwards. R0 Wiltshire (997cc Ariel sc) slowed almost to a standstill owing to wheelspin and was pushed before he actually stopped, so doubtless will be counted as non-stop. The sidecar wheel of EJ Cornish's 498cc Panther outfit lifted before he got to the second bend, and he rammed the bank so hard that he retired with damaged forks. Then a perfect touring climb by E Trayers (499cc Rudge sc)—an utterly effortless ascent...WD Deary's 598cc Panther outfit gave a most excellent demonstration of slogging. power. The girl passenger aboard GAT Brett's Triumph outfit helped an excellent climb with bouncing of a type that made it look as if she is also an accomplished horsewoman. Another strenuous exponent of the art of bouncing was the man aboard C0 Bell's Scott outfit—he put his feet right through the sidecar nose. With mighty wowls and slipping the clutch RC Rivaz (596cc Scott sc) went up in speedy spasms... The 'Menace', Lieut. BDS Ginn's three-wheel-drive BSA, climbed with the greatest of ease...Rejoining the coast road near Porlock, competitors had the

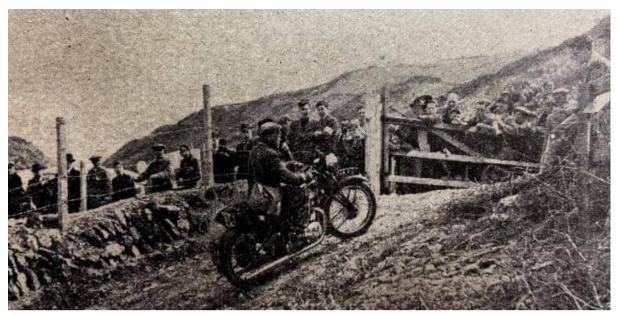
delightful but bumpy run to Lynmouth, where the second hill of the day, Station Hill, had to he tackled. In the past few years. clay has been put on the hard surface of this hill near the top, out of sight of the competitors from the starting point. This year there was about 100 yards of loose shale on the hill in the same position. It was said that local children (!) had done the 'damage' in order to make the section interesting. It proved more than interesting for most competitors, and out of the first 100 men only 15 made clean climbs...For the London contingent the hill was almost a catastrophe, and failures were the general order. Most people arrived at speed, hit the shale and fell with front wheel slides almost



"WG Knight (990cc Matchless sc) snapped in the act of careering from one bank to the other at the first hairpin bend on Doverhay."

immediately. W0 III F Morrison (490cc Norton) had lots of bother after hitting the wall. SA Waghorn arrived at speed, had two terrific slides and that was that! In quick succession. HN Toomey (990cc Brough Superior) and JH Whitfield (494cc BMW) made superb climbs on a breath of throttle, and Sergt G Mackay (490cc Norton) was faster but just as good. Sergt J Tilsley (490cc Norton) was unfortunate to suffer a vicious slide

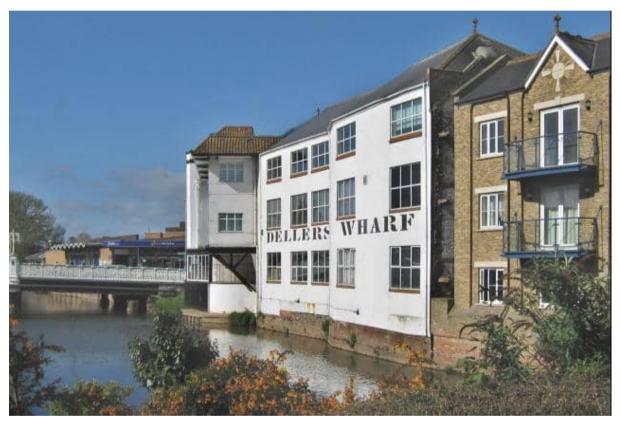
when he had conquered the worst of the loose stuff. AJ Absalom (498cc Velocette) just rode straight up as though there was no loose stuff at all. Gdsm WG Watts (490cc Norton) sat squarely in the saddle and motored briskly over the tricky part, only to foot at the top to save the machine from hitting the wall. On the old Martinsyde, PJ Tait 'pobbled' his way up the hill with a dab at the top. WRE Best (498cc Scott) showed how the hill should be climbed; he stood on the rests and leant right forward, concentrating on the front wheel all the time. Beggars' Roost, which probably vies with any other in the West Country as the most famous test hill, was not up to its usual standard last Saturday. There was a loose top dressing of road metal, but it was not deep and even the famous 'hump' did not cause much trouble. Clean climbs were the order—and fast ones at that. L/Sergt HF Hartry (348cc Matchless) was obviously out to make the fastest climb of the day. HH Hawes (349cc Triumph) spoilt a neat climb with a foot on the hump, and EB Stott (348cc Ariel) hit the hill in second gear and only just had enough power to get over the 'hump'. About this time the sun crept over the top of the hill, and, to competitors, appeared to be rising immediately behind the 'hump'. It made the hill trying for a while, and SV Habgood (346cc Levis) was one of several who shaved the bank owing to dazzle...VJ Beachamp (499cc Rudge sc) was the first outfit to fail—he started bouncing when almost at a standstill. JFS Polden (497cc Triumph sc) attempted the hill in second gear, made a late change down, and failed through loss of speed. LG Swabey (498cc Scott sc) failed to keep to the offside and crabbed into the crowd on the hump. The only three-wheeler climb seen was HP Guerrier in a BSA. He came up in reverse, but failed low down. Apparently, while looking backwards, he could not keep his foot hard down on the accelerator. Barton Steep was so dry that it was hardly worth observing, and the stop and restart test was not difficult. A cross-country run to Darracott Hill followed. The twisty roads caught one competitor. AVB Baker (493cc BSA sc), who was running very late; he turned the outfit over on a bend and decided not to continue...Sixteen miles from Darracott is Bude, where there was the lunch stop. Competitors were officially allowed 1½ hours here, but as the majority of the later men were well behind schedule the average stay was only half an hour. Some of the riders were already complaining of weariness, and one man in particular looked as though he had ridden quite far enough. But there was little respite. The coast road to Crackington presents magnificent views, but it is rough and twisty. Although the average speed was reduced to 15mph, there was no time for



"CH Rothwell (497cc Triumph Speed Twin) negotiating the steep artifical bends of the Motor Cycling Club's private specially made Bluehills Mine. The normal hill became too easy, so a few years ago the MCC decided to lease some of the adjoining hillside!"

stopping to admire the scenery. On Crackington Hill, competitors were restarted right on the gradient. The surface was a little greasy, but there was wheelgrip enough, and only those who were ham-fisted with the throttle on the restart had any bother...New Mill Hill, one of the more recent additions to the 'Land's End' sections, was almost as easy as Darracott...AED'a Sugden (499cc Vincent- HRD) made a good fast climb with solid front forks—the fork spring had broken earlier in the morning. JJ Boyd-Harvey (490cc Norton), back in the saddle after a long absence, was marked as vg; RT Newbery (498cc Triumph) earned the remark 'at speed'. JJ Bainbury (348cc Ariel) fell in the middle of a sedate ascent, and AH Martin (497cc Triumph) had a very rough passage, but retained his balance. Even the sidecar men found plenty of wheelgrip, and they mostly treated the hill as a speed climb. An exception was WD Deary (598cc Panther sc), who came round the bend so slowly that he seemed certain to fail. He opened the throttle, and the outfit just slogged to the top. For pulling powers, however, JE Arnold's 598cc side-valve Ariel outfit took all the honours. As he ascended, to the cheers of the crowd, the engine was turning over so slowly that one could almost count the revs. Among the fast brigade were AC Reynolds (498cc Triumph sc), who raced up with his front wheel pawing the air; DA Newberry (997cc Ariel sc), who was obviously enjoying the ride immensely; and CG Bell (596cc Scott sc), who had lost the bottom of the sidecar and also dropped a cushion during the ascent. A brilliant sun, a gloriously blue Atlantic and no wind—those were the happy conditions at Perranporth, and as a result Bluehills Mine—the MCC's 'private' hill—was lined with thousands of spectators. Bluehills is a tricky climb with its 1 in 4 gradient and many hairpin bends and an atrocious surface, and to make things harder there was a stop-and-restart test near the summit...2nd-Lieut JD Williams (490cc Norton) touched once or twice, Art J Bannister (490cc Norton)

and CL Teague (348cc BSA) went up standing on the rests. EF Cope (1,324cc BSA) was applauded for the clever way in which he handled his three-wheeler on the steep bends, and N Miller's (498cc Vincent-HRD) performance was also appreciated by the crowds. The restart test took heavy toll of the competitors, and quite a number were towed up...There was an odour of burning clutches at times, varied with burning rubber when the driving wheels spun on the concrete. After all, 1 in 4½ is no mean gradient on which to restart a passenger machine. E Travers (499cc Rudge sc) would have succeeded had he not been baulked, and Wiltshire (997cc Ariel sc) just struggled up. Brett (493cc Triumph sc) brought his front wheel up vertically when he suddenly let in the clutch, and landed high and dry on the protecting sandbags. For

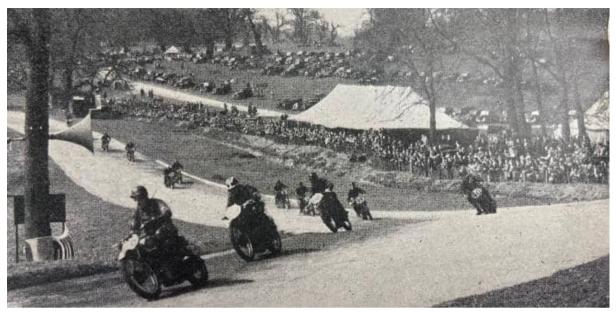


Dellers of Taunton, the Land's End lunch stop, is still in business.

skilful handling of a big solo mount, HN. Toomey (990cc Brough Superior) earned an enthusiastic clap, as did RC Halls (349cc BSA). V Mason (600cc Levis) coolly surveyed the bends and judged his course magnificently. SW Simes (248cc Excelsior) failed, descended the hill, and an hour later appeared again, but with no better luck...L/Corp Kent (347cc Matchless) caused roars of laughter by dashing clean through the stop-and-restart test. He was flagged down, and when he restarted he swerved and scattered the crowd. Another who was applauded was Lt GJ Smith-Masters (347cc Matchless), for he was seen to be holding a broken throttle wire in one hand. Notwithstanding this handicap he restarted perfectly. AE Hare's noticeably silent Ariel Four was inconspicuously good...When KS Fisher (997cc Ariel) arrived with a large hare strapped to the hack of the sidecar—a moorland spoil—the Cornish crowd yelled. He nearly lost

the hare when his passenger bounced strenuously to improve wheelgrip!...BC Rivaz (596cc Scott) failed on the hairpin. At the same point Lieut BDS Ginn drove one wheel of his famous three-wheel-drive 'Menace' high on sandbags and actually touched ground with his hand. As eager officials were running to his aid he turned up the taps and shot up the gradient as if nothing had happened. How the crowd laughed! Land's End was now less than 40 miles distant. They were, however, 40 miles of twisting road—to the competitors they seemed almost unending. Happily the surface is no longer dusty and pot-holed. Land's End at last, the finish of a strenuous, but—thanks to the perfect weather—thoroughly enjoyable trial. Of the 229 starters in the motor cycle classes, 188 finished, 55 claimed premier awards, 58 silver medals and 65 bronze medals."

"A WONDERFUL DAY—the sun shone from a cloudless sky and there was just sufficient breeze to give a freshness to the air. Everything at Donington seemed perfect for this, the first motor cycle meeting of the year, and by the time the first race started the track was lined with an enthusiastic concourse of spectators and they were still coming in in their hundreds. The Donington authorities, headed by Fred Craner, have perfected the organisation, and promptly at the advertised time the riders in the first race, for 250cc machines, were sent off. At the fall of the starter's flag, Leslie Archer (New Imperial) shot away, followed by Maurice Cann on a Guzzi Another interesting machine was MN Mavrogordato's 'blown' DKW, but it did not appear to have enough speed to keep with the leaders. At the end of the first lap, Archer had a big lead, with Cann second and RH Pike (Rudge) third. Soon, however, H Haitley took third place, closely followed by 0 Parkinson (Excelsior). Sometime during the sixth lap Cann disappeared with a trouble not stated and Parkinson moved into second place. Nobody, however, could get anywhere near Archer, who went on to win a fine race in record time. Parkinson and Hartley were second and third respectively, and there was an excellent scrap for fourth place between RH Pike (Rudge) and RE Geeson (Excelsior), Pike just getting it...Heat 3, and the final of the day, saw Daniell once more out for blood. Clearly he was superior to everyone else—his riding reached that perfection one has come to expect of him and his machine seemed equally perfect. He was chased at first by Wellsted on the New Imperial twin, but unfortunately this machine failed when Wellsted in a super effort attempted to stave off the challenge of J Lockett (Norton). Lockett thus ran into second place, followed by ST Barnett (Norton) and W Parsons (Norton). These last two had a grand scrap and Parsons managed to gain third place by about a wheel. Result: Unlimited cc Race: 1, HL Daniell (490cc Norton), 73.93mph; 2, J Lockett (490cc Norton); 3, LW Parsons (490cc Norton); 4, ST Barnett (490cc Norton)."



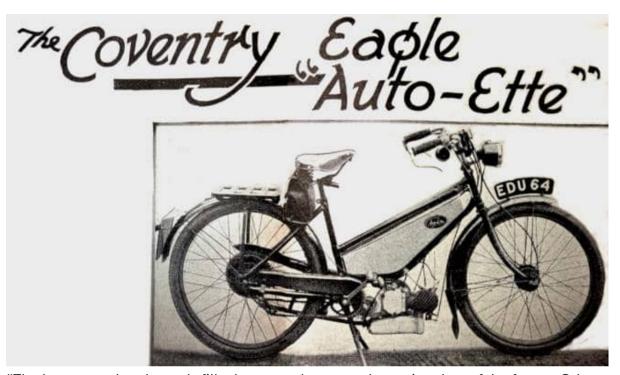
"A thrilling glimpse of the field sweeping round the Hairpin in Heat 1 of the 350cc 25mile solo race. The front man is C Hamlett (346cc Royal Enfield)."

"TN VIEW OF THE FACT that the Ner-a-Car has been mentioned in your Correspondence columns lately, I think a few facts about this machine might be of interest. I was an employee of the firm when it closed down; also an enthusiastic rider of one of their models. People today think of the machine in terms of the two-stroke, but I would like to point out that the makers also fitted a 350cc engine, both side- and overhead-valve Blackburne. As the owner of an ohv model I found them very sporty. In 1926 two of these machines took part in the Southern Scott Scramble, and performed well. Also, quite a number were sold as sidecar outfits, for which purpose they were ideal. But I think the most interesting thing was a spring-frame model. The wheelbase was lengthened and leaf springs were employed. The petrol tank was built to form the hack of a bucket seat and a handlebar screen was fitted. The seat or saddle was no more than 12-15in from the ground. A centre stand with a lever was fitted, so that the rider could pull the machine on to it while still seated. This machine was quite easy to handle and a real pleasure to ride. The biggest factor in putting this machine off the market was the heavy royalties which had to be paid to the USA, the machine being of American origin.

R Hennessey, Teddington, Middlesex."

"WILL WE EVER HAVE a Government subsidy for motor cycle clubs in this country? The idea sounds pretty revolutionary, but in New Zealand the Government has realised the value of clubs in increasing road safety, and through its Transport Department is assisting to develop them. It is recognised that the club rider develops into the safest road user, and in some clubs one or more members have been elected to act as patrolmen on the roads. Their duty is to report to the traffic-police department cases of dangerous driving and the like. The police then issue a caution and keep a note of the transgressor's number, so that sterner measures can be taken if he is reported again.

This interesting news comes from Mr GE Stock, the 0K Supreme factory representative, who is at present on a tour of New Zealand and Australia, and he adds that a sum running into thousands of pounds has been made available by the Dominion Government to foster motor cycling in New Zealand."



"The large petrol tank neatly fills the space between the main tubes of the frame. Other interesting features are the sturdy spring-up central stand and the tool bag behind the saddle, which is large enough to accommodate a cape or leggings."

"IT WAS IN 1938 that the range of motorised bicycles became comparatively wide. Even more models are available this year, and among them is the Coventry Eagle Auto-Ette a particularly interesting machine that las been considerably improved since its introduction at last year's Show. Much attention has been given to the construction and layout of the sturdy, open frame. Immediately one is seated the well-planned riding position is appreciated. Saddle and handlebars can be adjusted to suit a rider of almost any stature; the pedalling gear is far enough forward to be used easily and powerfully with a minimum of effort, and the rider's weight is taken by the pedals much in the same way as a motor cyclist supports himself on the footrests; the saddle is well sprung; and the 26x2x1¾in. tyres are adequate for a machine of this type. All these features combine to make the Auto-Ette very comfortable to ride. With the exception of the carburettor choke rod, which is positioned at the near side of the tank, all the controls are on the handlebars. On the off side are the front brake, compression release (used for stopping the engine) and throttle control, and on the near side the levers for the clutch and rear brake. The arrangement is admirable except that one cannot simultaneously apply both brakes and free the engine from driving the rear wheel by declutching. However, in practice the front brake alone was found to be so powerful that the rear

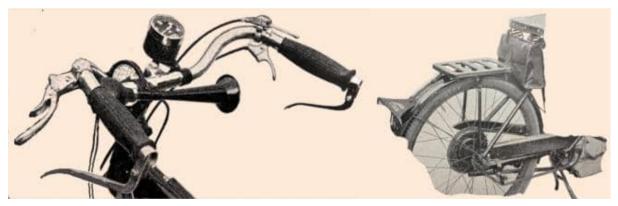
brake was unnecessary except for a crash stop. The clutch lever is provided with a trigger that permits the clutch to be held out when required (as for instance when in a traffic hold-up), and both lever and trigger are commendably easy to operate. It was invariably an easy matter to start the 98cc Villiers Junior engine by pedalling off until the speedometer showed 5mph and then dropping the clutch with the throttle about a quarter open. When starting from cold it is, of course, necessary to provide a richer mixture by depressing the very accessible knob on the top of the float chamber until petrol just starts to ooze from the carburettor, and also to pull up the rod at the side of the tank which operates the choke or strangler. When the engine has been running for about a minute the rod is depressed and the choke



"Even a rider 6ft tall is comfortable on the Auto-Ette and the pedals are comfortably placed both for use and when acting as footrests."

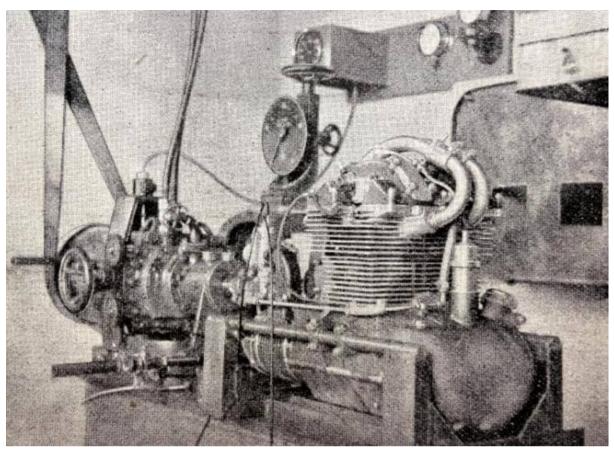
opened. At first the engine tended to fire irregularly, but after the throttle needle had been adjusted to give a weaker mixture the firing was even and thoroughly satisfactory. From a speed of about 9mph up to the maximum the engine pulled steadily and smoothly, though by careful throttle work and slight slipping of the clutch the machine

could be driven at a comfortable walking pace. The tick-over speed of the engine when hot is remarkable; so slow is it that the hexagon edges of the flywheel nut can be discerned, and so quiet that only the regular exhaust 'plops' can be heard. The clutch is smooth in taking up the drive and adequate to allow the machine to be driven off from a standstill without the rider pedalling. Only once during the test was it necessary to assist the engine with the pedals, this was on the 1 in 8 section of Anerley Hill, a lengthy climb near the Crystal Palace, and the pedals were used for merely about 15 yards. Very few main road hills are so steep, and the majority of riders would find the pedals are required solely for starting and for dense traffic. One full revolution of the pedals turns the back wheel twice—an excellent compromise between easy operation and reasonable speed. Incidentally, the pedal chain is automatically tensioned by means of a spring-loaded jockey pulley; the driving chain adjustment is obtained by moving the back wheel, and bolts through the frame lugs, as in motor-cycle practice, are used for this purpose. At 20-25mph the engine is working well within its power and these speeds were frequently maintained for fairly long periods. The maximum speed as shown by the speedometer was 28mph, and on one occasion this speed was used for a 34-mile journey as often as conditions permitted without the engine showing any signs of tiring. For town work there are few vehicles faster than the Auto-Ette. The cruising speed is higher than the average cyclist is wont to pedal, and in dense traffic or hold-ups the rider can take full advantage of the manoeuvrability of the machine. It has been stated that the front brake is powerful. The back brake is also well up to its work, and using both brakes together a crash stop from 20mph could be made in 54ft on a dry tarmacadam surface. Both brakes are of the internal-expanding type and they did not lose their efficiency in wet weather. Under bad weather conditions, which were experienced frequently during the test, it was found that the front mudguard valance and the mud flap amply protected the rider.



"The clutch lever has a ratchet which is very conveniently placed. Brake controls are of the inverted type and the only other levers are for the throttle and compression release." (Right) "Driving and pedal chains are protected by guards on the Coventry Eagle. The pedal chain has a jockey-sprocket tensioner."

Further, the machine never showed any signs of skidding and could be handled confidently on the greasiest of surfaces and over tram tracks. No special test was made to determine fuel consumption, but a figure of 107mpg was obtained by pouring 1½ gallons of petroil into the tank when the machine was collected and then measuring what remained after 122 miles. Most of the riding was done in town when travelling to and from the office—use to which the average Auto-Ette rider would probably put his machine. Many of the fittings of this little machine can be classed as luxurious. The large tyres and adequate mudguarding have already been mentioned. Both chains are fitted with guards, so that trouser clips are unnecessary; the carrier is sturdily built and though large enough does not spoil the pleasing lines of the machine; the saddle bag, apart from carrying tools, will easily accommodate a cape and light leggings; and the tank, which holds nearly two gallons of petroil, is fitted with a reserve tap. Once the carburettor had been correctly set no adjustments whatever were carried out and the engine remained clean apart from a slightly oily deposit on the float chamber—the result of over-flooding the carburettor. There seems little doubt that the Auto-Ette would run for long periods with a minimum of routine attention and without the need for replacements or repairs. This fact, combined with the low fuel consumption, an annual tax of only I2s and DU third-party insurance for 15s a year, makes for really economical transport. The price of the Auto-Ette is £17 17s complete with direct flywheel-dynamo lighting, horn, pump, tool-kit and licence holder. The makers are The Coventry-Eagle Cycle and Motor Co, Dept 1, Bishopgate Green Works, Coventry."



"TT Secret out! The new twin-cylinder Velocette engine for the TT undergoing a bench test. The bulbous portion in front of the crankcase is the oil reservoir, surmounted by a breather. At the rear can be seen the compressor and the carburettor."

"A FEW WEEKS AGO Nitor, discussing what he called a miniature general post on the technical side of the motor cycle industry, mentioned that Mr Anstey, the chief designer of Ariels and designer of the ingenious spring frame, was severing his connection with the firm. Mr Anstey has now joined the Villiers Engineering Company as assistant to the Works Director, Mr Pountney. Among his duties is that of having charge of the experimental department."

"APPROXIMATELY TWO out of every 100 motor cycles in use in Britain to day is a pre-1926 model. In Norfolk, however, on an average nearly 4½ motor cycles in every 100 are pre-1926."

"THERE ARE NEARLY 2,000,000 private cars in use in Britain, and of this number over 1,120,000 are under 10hp."

"A COUPLE OF YEARS ago it was rare indeed to see a motor cycle fitted with a handlebar windscreen. Nowadays it is possible almost any week-end to count them by the dozen. Moreover, these screens are to be found on all types of machine, from utility mounts to super-sports solos. What makes the change in outlook particularly interesting is that it is not very long since manufacturers were saying that it was

impossible to sell machines with fully valanced mudguards because as a result the machines did not look 'sporting'. Thus, they continued, they were forced to provide narrow guards that they knew to be inefficient. The adoption of handlebar windscreens is proof positive that a section—a large and growing one—is keen to have the maximum possible protection."



"Line-up of enthusiasts: The Clydebank MCC lines up just before setting out on a run to Loch Lomond."

"LAST YEAR, OF THE 462,375 motor cycles licensed no fewer than 106,200 were sidecar outfits. That there are three sidecar machines for every ten solos is interesting, but perhaps still more striking is the fact that among motor cycles over 250cc the proportion is 105 sidecar outfits to 173 solos. If three-wheelers are added to the sidecar figure—there are nearly 19,000, but not all of them passenger vehicles—the figure for passenger machines comes surprisingly close to that of solos. In addition, were statistics available covering the number of 350cc machines on the road it might well be found that among machines of 500cc and over, the numbers of solos and sidecars are approximately equal. The statistics emphasise the importance of the sidecar. They reaffirm what we have so often urged—that still more attention should be paid to sidecar matters, especially by all who make motor cycles of 500cc and over. At present the majority of thought is lavished upon the characteristics of such machines for solo use. In many cases manufacturers do not provide sidecar front fork links and the owner either has to have special links made up or continue with unnecessarily heavy steering. Another unhelpful point is that the transmission is normally on the sidecar side of the machine. It is obvious that sidecar matters should loom still larger in manufacturers' minds. Incidentally, it is very pleasing to find that the Army is taking a fresh interest in

sidecar outfits and has now a number of two-wheel-drive sidecar outfits, a design developed by trials."

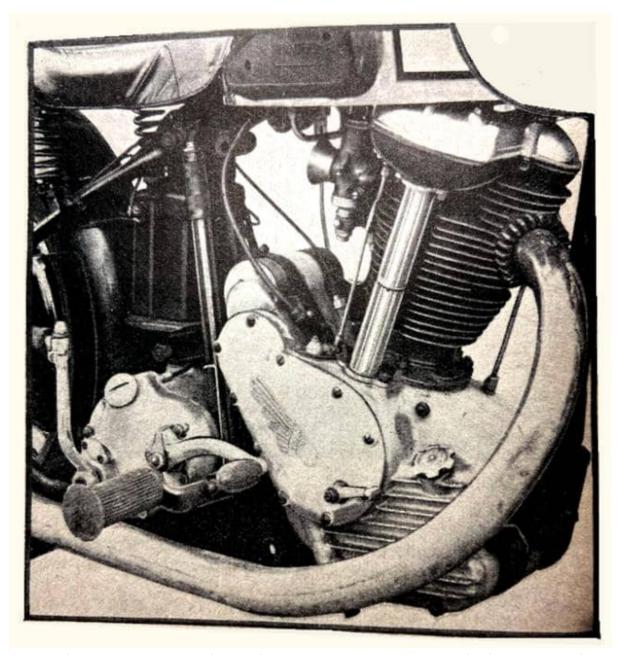
"THE SEVEN PEERS who produced the House of Lords report on road safety display a refreshing vigour and originality—for politicians. To my mind the high-spots of their report consist rather in principles than in detail. Notable are two sound propositions, viz:(1) Discipline for all road users. (Hitherto the pet slogan has been discipline for motorists, but sheer licence for peds and cyclists.) (2) Segregation of traffic. (Recent developments have reduced our roads to the semblance of the 'Happy Family' cages shown at rural fairs, with a cat and a rabbit and a dog and a mouse and a hen and a ferret all sharing a single wired enclosure. If a nursemaid wished to wheel a pram on the track of the LMS the venturesome nursemaid would be sent to Colney Hatch; and if the LMS asked leave to run the Flying Scot on rails laid up the middle of the Great North Road its directors would be sacked.) No House of Commons committee would dare to advance such logical proposals, because the members of the Lower House think with an eye and three-quarters cocked at their constituents."



"Many practical features have been incorporated in the Redwing Panther. This view shows the extremely efficient rolling rear stand, the specially shaped gear lever and the folding kick-starter pedal." (Right) "The engine is housed in a normal diamond frame. The frontal treatment of lamp and horn is effective, and with the new petrol tank gives the machine a smart appearance."

"WHEN THE MAKERS OF PANTHER motor cycles introduced the 498cc Model 95 Redwing early last year their object was to provide a machine that was lighter than the 600cc model and therefore more suitable for fast solo work. For 1939 the 500cc model has many of the refinements of the larger machine while retaining its original characteristics. All the moving parts except the wheels and rear chain are totally enclosed, and one of the outstanding features of the machine submitted for road test was the almost entire lack of noise, mechanical or exhaust. With the engine ticking over there was no definite noise or clatter—simply a pleasant hum. At low speeds the exhaust was practically inaudible, while even at large throttle openings it was

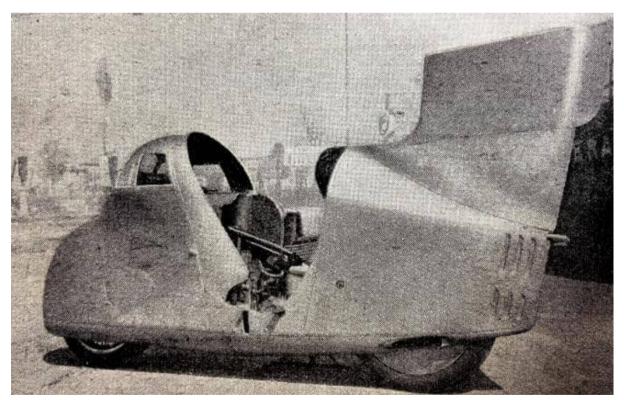
exceptionally quiet. The machine, therefore, was unobtrusive at all times, and for this reason alone was particularly pleasant to use in town. In addition, the engine pulled exceptionally well and was silky at low speeds. For all normal work the machine could almost be treated as a top-gear mount. In town, speeds as low as 20mph in top were normally used, and the machine would always pull away from this speed without a trace of knocking...Although the minimum non-snatch speed in top gear (4.5 to 1) was only just under 15mph, the machine would accelerate from 15-30mph in just over six seconds. On hills the slogging power of the engine showed up particularly well. No main-road hills were encountered that the Panther could not climb in top gear. Pebblecombe Hill, in Surrey, which has a maximum gradient of 1 in 5, was easily breasted in this gear. Even when slogging hard the engine refused to pink on ethylised fuel. The Panther was lively as well as docile, and a useful performance was available at a turn of the grip. Acceleration was excellent. In third gear (5.8 to 1) the machine. reached 50mph from 20mph in a little over ten seconds, and took fewer than eight seconds in second gear (7.3 to 1). Fifty mph was about the comfortable maximum in second, although the machine achieved nearly 60mph during the maximum test. In third gear the best speed attained was 71mph, while in top the best timed speed over the 'quarter' was 80.4mph and the mean speed of four runs on a fairly windy day 76.4mph. The most comfortable speed for fastish cruising seemed to be about 50mph and the Panther would burble along at this speed in a tireless manner—tireless to both rider and engine. Above this speed some vibration was noticeable, and this increased with the engine revs. Standing-start acceleration was also very good—at the end of a quarter-mile the speedometer registered 68mph. This speed is more creditable having regard to the fact that very rapid gear changes were impossible, as the clutch was inclined to 'hang'. This was noticeable mainly when engaging bottom gear with the machine stationary. The clutch was smooth in taking up the drive and the transmission with its cush-drive in the rear hub quite free from snatch. By modern standards the steering of the Panther is heavy—a feeling which is enhanced by the short handle-



"All moving parts of the Redwing engine are enclosed and the exterior is free from frills. Note the decompressor on the timing chest and the sump filler-cap and dip-stick just above the sump ribbing."

bars. But it was not so heavy as to make the machine awkward to handle at low speeds, while on the open road it gave a feeling of steadiness and stability that was extremely pleasant. Pot-holes or bumps could be taken without the slightest waver, even though the steering damper was not used; this stability was probably due to the particularly smooth action of the front forks and to the work done by the multi-plate shock absorber. Only one criticism can be made of the Panther's handling and that is that some tail-bounce was experienced on very bumpy surfaces at high speeds. On corners the machine was rock-steady. The Panther riding position is of the touring type, and was found quite comfortable. The saddle has a wide range of movement, and footrests,

brake and gear lever pedals are all fully adjustable. For a rider with long arms the handlebars could be farther forward, while the shape of the bars did not give an entirely comfortable position for the wrists. Concerning the brakes little need be said except that they had ample power for the machine's performance. The leverage of the rear brake pedal is excellent, and the effect of the rear brake working through the cush-drive was noticeable in that rear-wheel braking was smooth even on bad roads. The front brake was very powerful, although the lever fitted required a good stretch of the hand. Both brakes used together brought the machine to rest in 34ft from 30mph. A decompressor is fitted to the Redwing engine in addition to an exhaust lifter. With the decompressor in use, starting from cold presented no difficulties. A large throttle opening and a hard kick would always produce an immediate start. With the engine warm, only a breath of throttle was required for starting provided the ignition was well retarded. Slow running was certain and the rider could always be sure when coming to a traffic stop on the pilot jet that the engine would continue to run smoothly and evenly. During the test the machine remained quite oiltight except for a small leak from the crankcase joint at the rear. No report of the Panther would be complete without reference to the rear stand. The Panther is not a light machine, but the rolling-type stand fitted required remarkably little effort to operate. This is only one of the features that make this new Redwing a machine for the discerning owner."



"The hour record breaker—Taruffi's all-enclosed, supercharged, four-cylinder Gilera."

"HORSE-DRAWN VEHICLES and barrows are to be prohibited from using Blackwell Tunnel on week-days between 8 and 9.30am, and 5 and 6.30pm."

"THERE IS A LAW in Quebec (Canada) to the effect that a car meeting another vehicle must reduce speed to 16mph."

"IT SEEMED THAT the Sunbeam Club's tenth Pioneer Run created more interest than ever. At the start on Epsom Downs, Surrey and all along the route there were thousands of spectators; in fact, the number of motor cyclists on the Brighton Road and the 'atmosphere' reminded one of the outskirts of Weybridge on Clubman's Day. The gypsies' caravans on Epsom Downs mingling with up-to-date vehicles made a fitting background for the ancient and modern motor cycles. According to the programme there, were two 'most ancient' machines—both tricycles and both dated 1898—EA Marshall's 250cc Beeston and HM Sloan's De-Dion Romain Orleans. Incidentally, both obtained awards. The remaining pre-1900 model was also a tricycle—a 200cc Singer driven by NCB Harrison. These three-wheelers not unnaturally created more derisive yet kindly comment in the paddock than the motor cycles proper, many of which, like FW Clark's 1911 Scott and the numerous side-valve Triumphs, were basically almost up to date—at least, one could



"A last-minute adjustment to the 1912 Indian owned by Rex Judd. The delightful-looking outfit alongside with upholstered bucket seat and collapsible hood is a 1912 Wilkinson with spring frame, four cylinders and shaft drive."

understand how they worked! Entries were divided into two classes: 'A' those machines manufactured before December 31st, 1904, and 'B' those made between January 1st, 1905 and December 31st, 1914. To even up matters, Class 'A' machines were allowed a five-minute petrol stop and finished at the Pylons, near Brighton, instead of farther on at Devil's Dyke, thus avoiding one fairly steep hill. It was noticeable how easily many of the competing machines started and how quiet they were. Of the early numbers only HM. Sloan (De-Dion tricycle) had difficulty in getting away, but a 50-yard push did the trick. Once on the move, few of the veterans were sluggards, as was discovered by The Motor Cycle man when he endeavoured to overtake a score or so of them before the hill at Pease Pottage, about 17 miles from the start. Even on the hill, which is a long climb, steep enough to make many cyclists walk, numerous competitors came up just as fast as traffic conditions permitted. In particular, PR Crittall (1902 Hobart) must have been

doing about 30mph, and HN Toomey (1912 Premier), equally as fast, overtook two lines of traffic at one point (and perfectly safely). And then W Fruin (1909 Triumph) showed that his model could climb hills of this type rather quicker than his observer's car! Of course, a few machines could have done



"Two successful veterans, George Brough and the famous 1902-3 Dreadnought, prepare to start under the condescending eye of a 'bobby'. A spare belt is anchored to the side of the tank."

with a little more power, but usually a few stabs at the pedals was sufficient. A Schlienger (1902 Stanley) pedalled for about three yards, and C Bullen-Brown had to assist the 142cc engine of his 1902 Clement-Garrard now and again. Then came two four-cylinder jobs—EH Springett hanging on grimly to the long handlebars of his 1911 Pierce Arrow; and HA Hampden on a 1912 Wilkinson and sidecar; the latter looked an odd outfit with its high sidecar hood and boiling radiator, though, in fact, it has many modern features, including a spring frame and shaft drive. The hill leading to the top of Devil's Dyke, for Class 'B' machines only, caused a few to have anxious moments, but the approach allowed rushing tactics, which most competitors adopted successfully. It was fortunate that this hill was not part of the course for Class 'A' machines, as they failed one after another—or was it that the riders were not trying? The majority of competitors clocked in well ahead of time, and surprisingly few were late. The reliability of these old models is quite remarkable; only six of an entry of 47 were reported to have experienced mechanical trouble, and of this number only one, SV Habgood (1914

Douglas), retired—with a broken front connecting rod. Only two machines stopped with belt slip, but the story might have been different had it rained!"



"The open road and all that'—George Bentley (1914 Triumph) passes over the level crossing at Reigate, followed by his travelling observer and others."

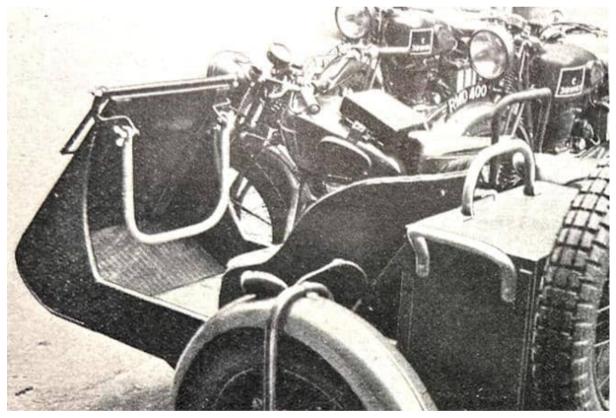


"How a marque has 'grown up': an interesting comparison in Scott machines—1911 and 1939. FW Clark rode the 1911 model in the Pioneer Run."

"THE RAC REPORTS that many enquiries have been received about touring conditions in Spain now that the civil war has ended."

"DURING THE FIRST YEAR of operation of Lancashire's courtesy police, fatal accidents were reduced by 18%, serious accidents by 43%, and slight accidents by 46%. Over 1,000,000 road-users, it is estimated, have been given advice by the courtesy police. Prosecutions were reduced to 9,000, compared with 23,000 four years ago."

"THIS WEEK I PUBLISH pictures of a very interesting sidecar outfit. If you have examined them you will have noticed that it is a sidevalve Norton, and in addition to its rather Spartan body has a pillion seat and sidecar-wheel drive. There are two driving wheels, and if you are a follower of trials I need not tell you that such an outfit, given suitable gearing, will go almost anywhere, nor that this form of drive is the direct outcome of those affairs that certain members of the public, given a chance, would have stopped—yes, I refer to trials. This type of outfit is interesting not only for the fact that here is yet another thing for which the public has to thank trials and the trials world, but because the War Office is showing a fresh and very wholesome interest in sidecar outfits, a type of machine which officialdom had relegated to the background as being of little value."—Nitor.

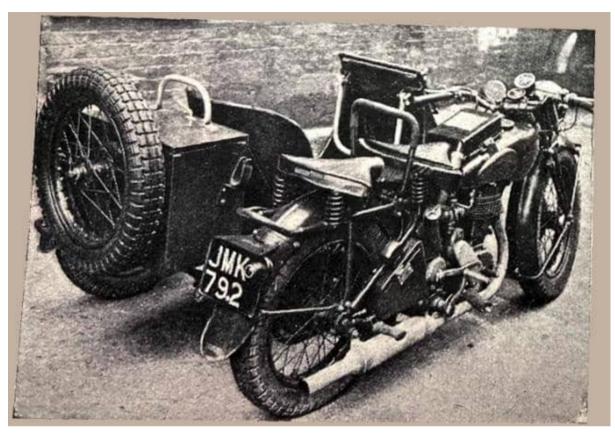


"Details of the rather Spartan-like sidecar. A small folding windscreen is provided."



left."

"Arrangement of the drive to the sidecar wheel. The drive is clutched in by moving the long hand lever to the

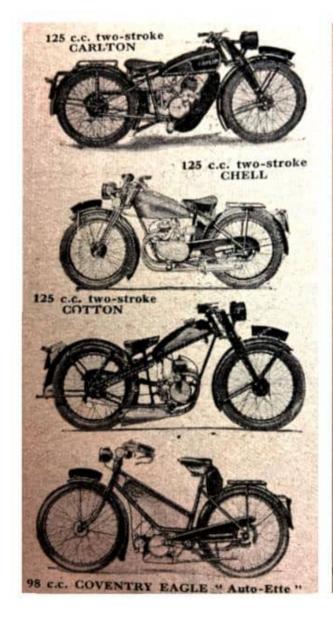


"The machine is a 633cc Big Four' Norton. Note the saddle-type pillion seat and the air cleaner mounted on the top of the tank."

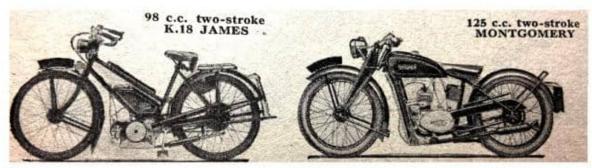
"A YEAR AGO THERE WERE only four different makes of autocycle on the market; to-day there are nine. Instead of hundreds on the roads there are now thousands. This type of machine, the motorised bicycle, has come to stay. Given 'live' sales methods on the part of the trade and industry—up to date the autocycle has largely been left to sell itself—it will become as familiar a sight in Great Britain as it is on the Continent, for there are hundreds of thousands of men and women to whom a reliable, inexpensive machine that provides cycling without effort can be a boon indeed. There is no doubt about the reliability of these modern machines. They are giving day-in, day-out service in every part of the country—for going to and from work, shopping, and even for quite strenuous touring. More attention is being paid to lightweight motor cycles than ever before. Coincident with the marketing of new autocycles there is a number of fresh miniature motor cycles—really light machines with kick-starters, three-speed gears and similar but slightly larger engines. Also in the lightweight class are two-stroke and fourstroke motor cycles of 150 and 250cc machines capable of touring anywhere and, in the latter size, of taking a pillion passenger or even, with some designs, a sidecar. Lightweights they may be in name, but in performance they are leviathans."

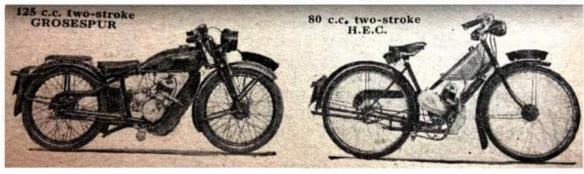
"THE MOTOR CYCLE LISTED the manufacturers of bikes under 250cc: "A fine range of power cycles and light motor cycles ranging in price from £17 17s to over £50—Carlton (Worksop): 125cc two-stroke. Chell (Wolverhampton) Cotton (Gloucester): 125 and

250cc two-strokes. Coventry Eagle (Coventry): 98, 125, 125, 150cc two-strokes; Cyc-Auto (London): 98cc two-strokes. Dayton (London): 98cc two-stroke. Excelsior (Birmingham): 98, 125, 148cc two-strokes. Francis-Barnett (Coventry): 98, 125, 148cc two-strokes. Grosepur (London): 125cc two-stroke. HEC (London): 80cc two-stroke. James (Birmingham): 98, 148, 197cc two strokes. Montgomery: (Coventry): 125 two-stroke. New Imperial (Birmingham): 146cc ohv. Norman (Ashford, Kent): 98, 125cc two-strokes. OEC (Portsmouth): 98, 125cc two-strokes. Pride and Clarke (London): 125cc two-stroke. Raynall (Birmingham): 98cc two-strokes. SOS (New Malden, Surrey): 172cc two-strokes. Wolf (Wolverhampton): 225, 147, 148cc two-strokes.

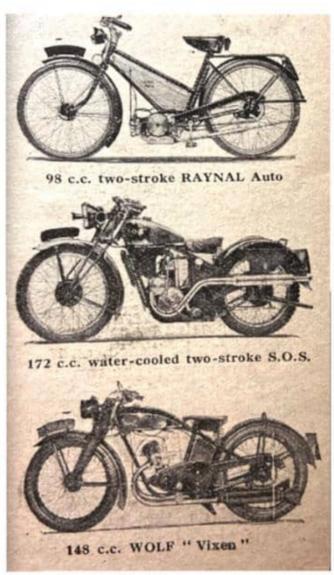


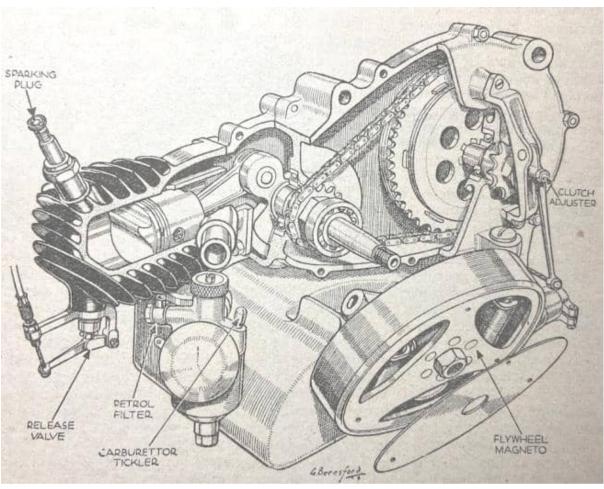




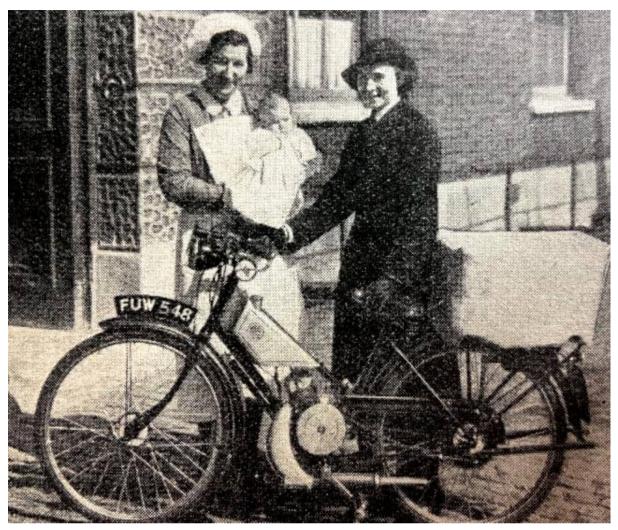




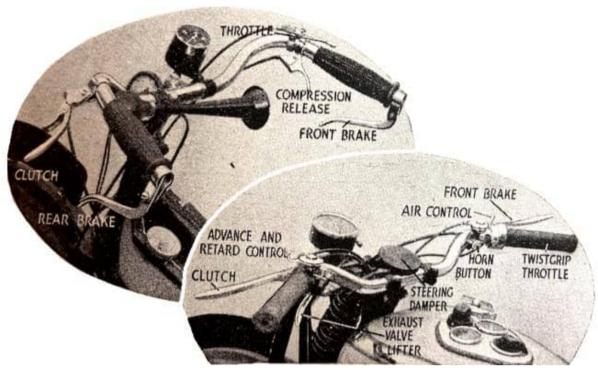




"The 98cc Villiers engine-clutch unit, which is fitted to the majority of makes of motorised bicycle."



"A baby presents a valuable 'baby': This 80cc HEC power cycle has been presented to Queen Charlotte's Hospital on behalf of 13-weeks-old Angela Sinton, of London W. The matron of Queen Charlotte's has already emphasised the value of such mounts to nurses with necessary but heavy equipment."



"Typical handlebar layout of a motorised bicycle and a normal motor bicycle."

"ONE EVENING LAST WEEK I spent an interesting hour or so with one of the development engineers in the infant plastic industry. Ever since I have been concerned with motoring I have marvelled that we have had to wait so long for a surface comparable to that of an ordinary teacup or other china article, ie, one possessing an everlasting gloss; susceptible to receiving any colour, pattern, shape or decoration; and capable of being restored by a wipe at any moment within centuries of its manufacture to its original beauty. It seems queer, in a period when applied science hardly recognises the word 'can't', that we still await the production of a similarly perfect finish for both wood and metal; and it seems possible that plastics may eventually give us what we need. Imagine, for example, that we could buy motor cycles in 1940 which in 2040 would still reproduce the perfect Show finish of a hundred years before, after no more laborious attention than a rub over with a wet cloth. Thousands of people would buy motor cycles who at present abstain. One that might last us a lifetime. Houses and furniture would become labour-saving to a fantastic degree. All modern tendencies seem to forecast an era when mankind will enjoy a very brief working day. Yet one wonders how mankind will ultimately accommodate itself to spending unlimited leisure."

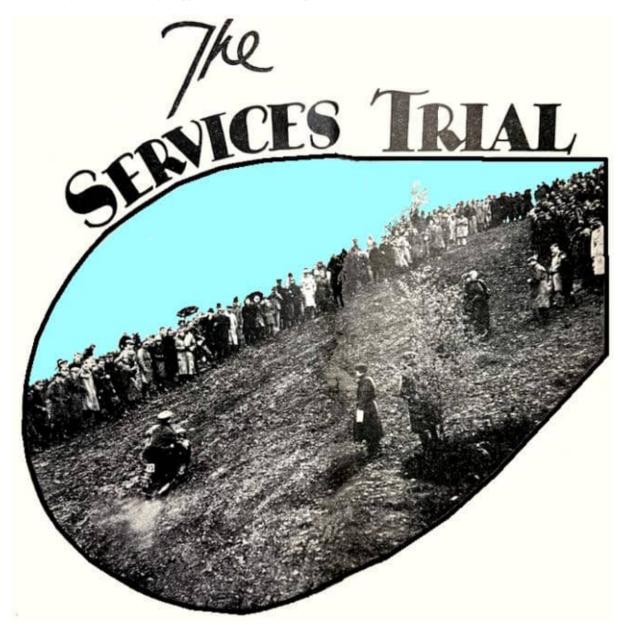
"AT LONG LAST SOME effort is to be made to standardise fines for motoring offences. This important step has been decided upon as a result of communications between the Home Secretary and the Chief Magistrate of the Metropolitan Police Courts, and although for the moment the scheme will apply only to police courts in the London area, it is obviously only a matter of time before it becomes general throughout the country."

"DID MY EYES DECEIVE ME, or did a recent news reel of the invasion of Albania portray an Italian army motor cycle with a tricar layout—a central wheel in front and two wheels astern?"

"OVER 11,000 NEW MOTOR cycles were sold in France last year, a small increase on the 1937 total."

"THE BRITISH ARMY IN EGYPT held their first motor cycle reliability trial on April 4th. It was in the nature of an interesting experiment, for conditions in Egypt are very different from those at 'home' or on the Continent. The main problem is that a man moving twenty miles across country has a vast space in which to get lost; and when lost he is very difficult to find. An extremely good course, partly road and partly desert, was selected about midway between Cairo and Suez. Many people, who have never been to Egypt, picture the desert as a vast, unbroken tract of sand, stretching with 'billiardstable' smoothness as far as the eye can see. Although this description is partly true of the Western Desert, the Eastern area is a study in contour and geological construction. In the area of the trials it is mostly of a rolling gravel-surfaced character, the folds harbouring sand or treacherous powdered-clay dust. While adhering to the orthodox conditions, the rules for the Army trial were framed in such a way as to test the Service motor cyclist in the normal requirements of his duty. Only authorised Army machines could be used, and on the day before the trials these were checked and then locked up till ten minutes before the rider had to start. Only one spare inner tube and a map board could be added to the components supplied by the maker. Standard petrol and oil had to be used, and Service Marching Order worn by the rider, together with a compass and extra water-bottle. The course was divided into six sections, each section finishing with a control point, which was connected by wireless to a central recorder. The schedule speed for the road sections was 25mph and for the desert 12mph, with the last section a shade faster at 18mph. Except for the last desert section there were no tracks, and the only directions. given were by map references. The day was sunny but windy as 92 competitors faced the starter, to be sent on their way at intervals of one minute. From the barracks on the outskirts of Cairo the route led over three miles of desert, and thence by the Cairo-Suez road to the western extremity of the course proper. This was fairly easy going, for the road was well graded and surfaced and the few corners banked—an invitation to open the throttle! The second section was entirely road, taking the riders from the western to the eastern extremity of the trials area. Half an hour's halt was allowed here, and then the competitors were despatched on a south-westerly lap over hilly where the going consisted of heavy sand liberally strewn with boulders and stones. After the next control the course turned due north, remaining rough and stony until it crossed the Cairo-Suez road, where the 'going', though soft, made easier riding for the final mile to the next 'check in'. Competitors then embarked straight away on the observed hill-climb. From here the riders were directed through a gully of very soft sand, and respirators had to be worn. The last section struck in an easterly direction, over

semi-soft going covered with small, sandy hills. RESULTS. Team winners (teams of four, best three to count): 'A' team, RASC (all on 498 cc Matchlesses). Individual winner: Cpl Bothamly (498cc BSA), Egypt Command Signals, 3 marks lost."



"Before a large crowd, L/Bdr E Kellen-Taylor (490cc Norton) tackles Rex Road. He fell after a thrilling series of rear-wheel slides."

"IN PLANNING THE COURSE for the 1939 Services Trial, which was held last Sunday, the CSMA set out to show the fighting Services, and in particular the Army, just what could be provided in the way of sporting sections without including anything impossible. And they certainly succeeded, for of the 24 observed sections used—many of them very difficult—every one was ridden clean by some of the entry. All sections were on WD land on that trials-lovers' paradise, Bagshot Heath and Pirbright. At the start at the cross-roads on Bagshot Heath, Army trucks and Army uniforms were most noticeable, for the Army accounted for 157 out of the total of 231 entries. The next largest group was

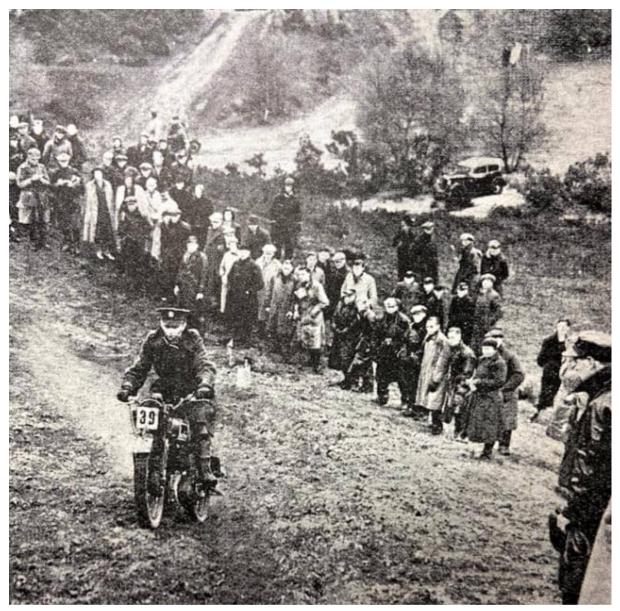
the Civil Service with 45 competitors, then the Navy with 19, while the RAF mustered ten. Among the civilians who were assisting or merely watching, winter wear was the order, for the weather was vile after the glorious days of the previous week. A cold wind blew across the Heath, and as the first men were sent away rain was driving down steadily. The competitors, however, were not to notice the cold, for observed sections followed thick and fast and the first section was only a few hundred yards from the start. It was a short, straight hill with a fairly hard surface and proved to be only an appetiser for the following 'courses'. One or two of the early numbers managed to strike trouble. The first was WN Last (498cc AJS), Civil Service, who dived into the crowd and stopped. Stoker EHG Cummings (495cc Velocette), RN, approached the section looking worried and stopped half-way up. One of the best-known sections on Bagshot Heath is, of course, Red Road. Last Sunday it was in fine condition for the trial. The surface was fairly loose and as the competitors virtually had a standing start from a knoll about halfway up the hill, clever riding was needed to get to the top without footing. In the early stages there was not a large crowd of spectators, but they kept arriving as the trial progressed, and among them were obviously many officers in 'civvies'. They all had plenty to see, for riding methods varied widely...Cpl JE Harper, of the RAF, could not get up enough speed and failed low down. A laugh was raised by Cpl JS Boxal (349cc Royal Ruby), RAF, for in looking round in answer to a shout from the marshal he fell off before entering the section. Another who failed before he had really got into the section was A Brown (498cc Triumph), Civil Service; he came to earth in a front-wheel slide. TH Coulter (348cc Norton), Civil service, tried new tactics by starting in second gear. When he saw that he was losing speed he changed down, but then it was too late. JEL Brookes (246cc AJS), Civil Service, nearly bounced his way through the saddle in the course of an excellent climb; SA Roberts, Civil Service, on a similar machine, laid the model down because he thought it was out of gear, whereas he had stopped



"With officials and spectators silhouetted against the sky-line, Cpl G Roberts (348cc Norton) of the RAF, makes a confident climb of Kilimanjaro."

with wheelspin. About this time the Army teams began to arrive in force on their standard Service machines. Failures were the order of the day, for the men could not get up sufficient speed to carry them up the loose part of the hill. When a rider got up by footing the crowd were quick to show their appreciation. Those who failed were sent right down to the bottom to get a long run at the hill, and there were several occasions when two riders were on the hill side by side, one on his first attempt and the other on his second. Of the Civil Service men who climbed before the Army teams, CA Bowhay was lucky to get up clean as his engine was misfiring a good deal; G Franklin (499cc Vincent-HRD) gradually pushed the crowd farther and farther back as he wobbled, and finally had to be assisted; and FA Whitehouse (497cc Ariel), after stopping just inside the section, made a fine unassisted climb from a standing start. Among the crop of failures that the hill made for the Army there were some outstanding performances. 2-Lieut JF Riley (499cc Royal Enfield) was the first one up clean after a long list of stops, but his machine was a competition model. His team-mates, Sgt F Cockerill (499cc Royal Enfield) and Bdr RE Martin (490cc Norton) were equally good. Sgt HRA Wheatley (349cc Matchless) got his Service machine up farther than most by using his feet right from the start, but the first man to take a Service machine up non-stop was Cpl T Boyland (349cc Matchless), who would have been clean but for a dab right at the crest of the hill. It was left to the 1st Bn Gordon Highlanders to show just how the hill should be climbed. First of the team, Pte A Fraser (490cc Norton), shot up the hill standing on

the rests and only had a dab at the top; Sgt W Inglis (490cc Norton) footed more, but was non-stop; and Cpl J Kemp (490cc Norton) completed the team performance by streaking to the top with his feet firmly on the rests. From the top of Red Road the route went on over the heath with sections in rapid succession. Tree roots, sand, narrow gullies and hills were all used to test the riders' skill and marks were lost wholesale. Section 11, a short track between high banks with a deep sand surface, caused a good deal of bother...It was only a few miles to the finish and the signing-off sheet, and many of the Army men were glad that they had trucks waiting to take their machines home. Missing footrests, damaged lamps and mudguards were common, and one man, L-Sgt JDD Young (490cc Norton), was seen to finish with both footrests missing. It was generally agreed that it had been an excellent trial with a good sporting course beautifully marked, and the enjoyment had not suffered by reason of the miserable weather."



"Pte G Anley, Army, gets upon the rests as he prepares to tackle the gradient and loose surface of Red Road."

"A FALKIRK MOTORIST who parked his car outside his home for 52 days was fined 10s."

"SEEN NEAR BISHOP'S WALTHAM (Hants) recently: an elderly power-cycle owner taking his dog for a run on the lead while riding slowly along a country road."

"NEARLY 2,000 INVALIDS use motorised invalid chairs in this country."

"MORE 1937 MODEL motor cycles, are in use at the present time than any other year, according to the latest figures."

"AT LAST A MOTORIST has been fined for failing to dip his head lights, on dazzling other road-users. The charge brought against the motorist was, however, one of driving without due consideration for other road-users, because there is no specific law against

dazzling. The case, the first of its kind, was heard at Barnet, and the motorist concerned was fined £2."

"AS A FRENCH DRIVER sees it: 'Why, when the danger of a dazzled driver is so obvious, do they not make it compulsory to have, and to use, a suitable anti-dazzle system?'—
French reader of *The Autocar*."

"MORE THAN 106,000 of the 462,375 motor cycles in use in Britain are side-car outfits. Nearly 173,000 solos are in the over-250 class; 131,620 are between 150 and 250cc; and nearly 33,000 are under 150cc."

"SOUTH AFRICAN MOTORIST fined for a motoring offence in London: 'I was struck by the difference of treatment between your police and ours. It was nearly a pleasure to be charged."

"ONLY 18 OF BRITAIN'S half a million goods vehicles are fitted with a coal-gas internalcombustion engine."

"LAST YEAR ONLY 5,170 of the 267,000 cars registered for the first time were open tourers; the rest were saloons."

"INDICATORS FOR BICYCLES may be enforced in certain parts of Switzerland in the future."

"OFFICIAL FIGURES COVERING the registration of new machines during February reveal increases in all classes (except sidecars) as compared with the corresponding period last year. Under-150cc machines are particularly popular, the respective totals being 313 (1938) and 530 (1939). The total number of new machines registered was 3,112, as compared with 2,864 during the previous February."



"A turn of the screw: a member of the London Ladies' Club confidently tackles the 1 in 3 section of the famous Screw Hill, Carnarvonshire."

"I AM A LIFELONG DEMOCRAT, but I really marvel at some of the things which democracies do. Our road problem is one of our major problems, but as soon as a Minister of Transport acquires a superficial knowledge of his job he is shunted off to some other department and we get a fresh novice placed over us about every other year. Or, again, the Government realised some years ago that our motor industry was being hampered by stupid taxation methods. British car owners were tied down to absurdly small cars, and inexperience in building roomy, cheap cars opened our Dominions and colonies to imports from America. So they cut the tax on cars. Our factories developed lots of superb 20 and 25hp jobs, and these sold freely abroad. Just when the experiment was really beginning to pay, they suddenly stick on an extra los per horse-power. I quite agree that ownership of a motor marks a fellow as one who can pay more for defence than most motor-less folk; but this particular way of separating him from his dibs is both treacherous and, foolish."—Ixion.

"IF EVER AGAIN I get hit by a motor I shall put heavy pressure on my medico to have the injury X-rayed at the first possible moment. Seventeen days after the smash my doctor agreed to an X-ray, and made the startling discovery that during this period I had been hobbling about on a broken leg! This did not speed up my recovery; worse still, I was entitled to a nice little spot of insurance on condition notice of a fracture was given within fourteen days of the accident..."—Ixion.

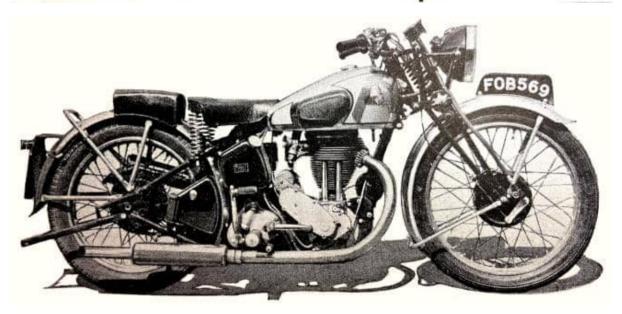
"I HAVE BEEN A constant reader of your great magazine for the past 12 or 13 years and I am sorry to say that I have noticed British motor cycles no longer figure prominently in the world-speed records. I used to look forward with pride and enthusiasm to your annual British Supremacy Number. Alas! British machines in regard to record supremacy are in exactly the same position as all Continental makes were in about

1926—nowhere! It is a sorry state for the industry to be in. As soon as a keen sportsman and brilliant tuner breaks a record, the manufacturers of his machine advertise in all the papers. Mr Manufacturer gets the praise, but how much of the effort was his? Velocettes deserve congratulations for their sporting efforts of the past years, and more so for their latest venture—may it be a world record-breaker! Surely an Austin engine in a duplex-steering and rear-sprung frame would be just the job. Oh, a car engine must not be used in a motor cycle! Well, a multi-cylinder engine is the engine of the future, so there is no reason why this masterpiece of car design should not be used, as it is compact, light and of only 750cc, and could be readily linered down to 500cc to compete on level terms with the all-conquering BMW.

Jack Brough, Lower Hutt, New Zealand."

"THE LATEST ADDITION to the OK Supreme range is a 348cc high-efficiency model that is specially suitable for grass-track racing and for racing on small road tracks. Known as the Model RRS/39, it is basically similar to the GTS/39—the grass-track model—except that it has full road-racing equipment and is designed to run on 50-50 petrol-benzole. Components such as gear box, forks, magneto, carburettor and mudguards are all of racing pattern, while the tyres are 3.00-21 or 2.75-21 ribbed front, and 3.25-19 triple-stud rear. Extras are available in the form of hairpin valve springs, megaphone exhaust system and long racing-type seat. The price of this genuine racing model in standard trim is £79 16s. An exactly similar machine in the hands of HL Graham broke the 350cc eight-lap record at Donington on Easter Monday with a speed of 69.03mph."

## The 347 c.c. o.h.v. O.K. Supreme "Gladiator"

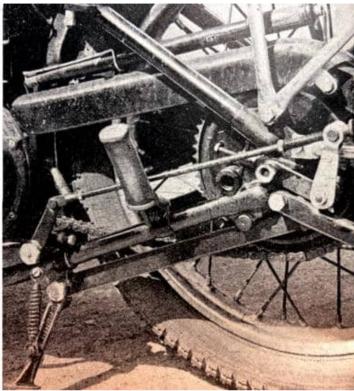


"The sturdy OK Supreme Gladiator has pleasing, well proportioned lines and an exceptionally good all-round performance."

"FEW CHARACTERISTICS APPEAL MORE to an owner than mechanical quietness. This feature, the absence of engine noise, was noticed immediately the 347cc ohv OK Supreme Gladiator was taken over, for at an idling speed all that could be heard was the muffled beat of the exhaust. This pleasing characteristic remained throughout the strenuous 400-mile test. In appearance this model seems small, but the illusion is lost when one is in the saddle. The riding position is good, and this with the fairly low handlebar mounting gives an almost straight arm posture that makes long distance open road work very comfortable indeed; further, the rear brake and gear pedals can be adjusted to suit almost any position of the footrests, and enable the rider to use these controls without moving his feet from the rests. The brake pedal has that useful feature, an adjustable stop. Handlebar controls are well placed, and the long saddle springs give an ample range of movement without bottoming. The engine would always start first or second kick provided that the air control was closed, the ignition half-advanced and the throttle just opened; when the engine was cold the carburettor had to be well flooded, but starting was just as easy. The idling speed was extremely low, and if the ignition were fully retarded the tick-over was really outstanding. From low speeds the pick-up as the throttle was opened was clean and rapid. The engine was very susceptible to the magneto control, which could be used to advantage under traffic conditions. In the latter circumstances slight unevenness in the clutch when taking up the drive was noticed, but no drag occurred when engaging bottom gear from neutral provided that previous to starting the clutch was withdrawn and the kick-starter depressed once or twice. The Gladiator is equally at home in traffic or on the open road. The engine is docile and smooth, yet could be driven hard for long periods without signs of stress. At speeds over 30mph in top gear the throttle could be opened as quickly as possible with the ignition at full advance without complaint from the engine. An ethylised fuel was used throughout the test. A very lively performance is available, particularly if full use is made of the gears, as is shown by the figure of 65mph reached at the end of a quartermile from a standing start. Throughout the throttle range the engine was perfectly happy and no vibration was noticeable—a commendable point. Thus any speed from 30 to 65mph can be termed a happy cruising speed. Incidentally, the speedometer needle could be kept hovering between 60 and 65mph on the open road for as long as the rider wished. The full performance can be used comfortably and safely. The only apparent engine noises were a slight piston rattle (as distinct from slap) noticed with the engine running light at speeds between 40 and 55mph and a mild timing gear whine, again at high engine speeds. Steering and cornering are magnificent. Again the rider experienced that illusion of smallness, for the OK Supreme could be pulled round sharp corners or gracefully taken through fast bends like a 250. A true course was easy to hold in these circumstances, and the rear wheel followed its appointed path even on really bumpy or wavy roads. The steering proved light and positive at both walking and high speeds; the steering damper seemed ornamental rather than necessary. An excellent hand control operates the fork damper. The forks, which have a long smooth action, were noticeably

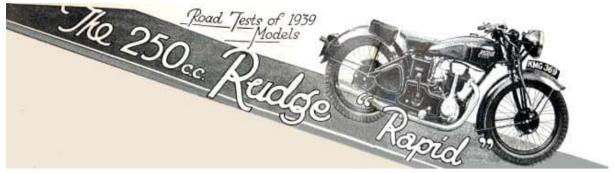
free from patter and never bottomed or clashed. Both brakes were of adequate power, although a longer hand lever to make operation of the front brake easier would be an advantage.





"This three-quarter view shows the neat power unit, which has the valve gear totally enclosed by the cylinder-head casting." (Right) "A useful prop stand is provided in addition to the rear stand. The long rear brake torque arm will also he noticed."

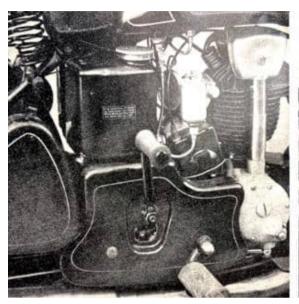
The rear brake was soft in operation and extremely powerful at the start of the test, but lost efficiency somewhat with hard use. The overhead rocker gear and the hairpin valve springs are fully encased by the cylinder-head casting, and this excellent design is no doubt a major reason for the engine remaining entirely free of oil leaks. There was a tendency for oil to be discharged past the tank filler cap at high speeds, and a small quantity of oil escaped from the back of the primary chain case. Careful attention has been given to appearance. The general lines of the machine have a pleasing symmetry, and the chromium-plated mudguards, wheel rims and tank with gold panels are attractive without being garish. In brief, the OK Supreme Gladiator is a machine with a very useful all-round performance allied to excellent steering and road-holding; it is also commendably quiet mechanically."

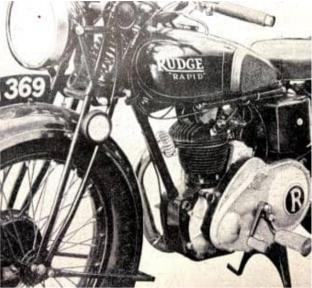


"Complete equipment is a feature of the Rudge, and the standard price includes a handsome 3½-gallon petrol tank, a pillion pad, engine shields, speedometer and large head lamp."

"THE 250cc RUDGES have always held a high reputation in their class. The 1939 Rapid model is a worthy follower of a successful line, with an engine that proved to be a glutton for revs. It seemed to like being thrashed hard in the gears, and although it had a sheer maximum of 55mph in third gear (8.2 to 1) it was quite happy to be taken up to 50 in this gear. In top gear (6.39 to 1) it would run smoothly and happily for mile after mile at 50mph and over, and even at these speeds there was no noticeable vibration. The speedometer was found to be accurate throughout the range. When the timed maximum speeds were taken the speedometer registered between 63 and 64mph over the quarter-mile on the fastest run; which the stop-watch confirmed almost exactly with an average speed of 62.5mph. In a mean of four runs the Rudge clocked 60.2mph. Acceleration was good. As with the majority of small engines, the Rudge preferred to be 'revved' away from low speeds rather than 'slogged'. How good the acceleration is when the gear box is used is shown by the figure of 53mph which was attained at the end of a quarter-mile from a standing start. And the gear box is there to be used, for the gear change was delightful, the changes being of the type that one associates with race-bred machines. Changes could be made at almost any engine speed, and the movement of the lever was very light. Some criticism could be made of the neutral position, which was not always easy to find. Praise for the gear change must also be praise for the clutch, and the Rudge clutch proved excellent. In spite of racing changes and a fair amount of harsh use it never overheated, and at the end of the test did not require adjustment. All the controls of the Rapid are well placed and smooth in use. Once the rider became used to the gear lever being on the near side and the brake pedal on the off side—the reverse of normal practice—their positions were found to be extremely convenient. This applies particularly to the brake pedal, which comes right beneath the rider's toe. Coupled brakes are, of course, employed, and the brakes were well up to the high standard expected of a Rudge. The coupling is effective and the brakes were progressively powerful. In normal riding only the pedal was used, the hand lever being almost forgotten. In the crash-stop tests the Rapid was brought to rest in 39ft from 30mph. The riding position is of a type peculiar to Rudges. The handlebars are low in relation to the saddle and the rider tends to sit over the machine rather than in it. The

position proved extremely comfortable, and gave a sense of mastery over the machine that was very pleasant. In traffic the machine was easy to handle although the handlebars are fairly short, while on the open road the rider could clamp himself on the machine without any effort. Throughout the range the steering was excellent.





"This neat shield makes the Rudge easy to clean. It is easily detachable for making adjustments, but the clutch adjustment is accessible through the aperture below the kick-starter." (Right) "The cross-shaft of the gear-change pedal runs through the oil-bath chaincase and the pedal is conveniently placed. Note the built-in licence holder."

It is of the heavy type without being too heavy for comfort at low speeds. For fast cruising it proved idea —firm and positive and free from any tendency to wobble even on bad surfaces. The steering damper was not used or found necessary during the test. The fork damper was effective and the range of the forks is wide and their action smooth. On bends the machine was rock steady, and the rear wheel did not float outwards when the model was cornered on a bad road. Except for a short period when a piece of fluff got into the pilot jet, slow running and low-speed pulling were both reasonably good. The machine could be throttled down to 12mph in top gear with the ignition fully retarded and could be accelerated away from this speed if the rider was careful with the throttle. An ethylised fuel was used throughout the test, and it suited the engine extremely well. Some criticism can he made of the kick-starter, which is placed rather high for comfort. The actual starting of the engine was easy. The ignition had to be retarded, otherwise the engine would kick back, and a large throttle opening and a fairly hearty kick were required. At low speeds some mechanical noise could be heard from the engine, but this was not unduly loud and did not increase with engine revs. The exhaust note was crisp and healthy at high speeds, but unobtrusive at speeds below 30mph. To sum up, the Rudge Rapid is a lively machine with a sporting performance, magnificent steering and good brakes."

"THAT THE BUDGET would involve additional taxation for rearmament was generally anticipated. But few imagined that the Chancellor of the Exchequer would adopt the easy but dangerous method of adding to the already almost absurdly high direct taxation of motor vehicles. Not only were motorists pouring some 80 million pounds into the Exchequer annually, and having to make do with an archaic road system when it was promised that all the money should be devoted to road improvements, but already the motoring community were contributing a tenth of the national income and supporting the third largest industry in the country—an industry of great importance to the nation's balance of trade and, in view of the modern mechanised Army, to the nation's security. It seems that Chancellor after Chancellor looks upon motorists as a milch cow. He imagines apparently that a motor vehicle is a sign of wealth. With the passage of years a motor, whether car or motor cycle, has become a necessity—it is essential to business and in the case of motor cycles is a means of getting tens of thousands to their daily work, and in other instances it constitutes the one relaxation in life."

"ONE EVENING LAST WEEK we experimented. Purposely we rode on to a white line on the London end of the Kingston By-Pass. The road was slightly wet and drying rapidly. There was no traffic approaching from the opposite direction except in the far distance. Apparently it was perfectly safe to forge ahead. As for the white lines, did not the Ministry of Transport, when we took up the matter of the skiddiness of such lines, state in reply, 'The consensus of opinion is that white lines are not slippery at any time.' Our acceleration was rapid but not ultra-violent—until the machine was on the white line. Instantly the machine went wild. It was exactly as if it had struck a lane of oil. That nothing untoward occurred was sheer luck. We went back to examine the road and learnt from an onlooker that at this very point on two consecutive days a mobile policeman skidded and was seriously injured, while another man skidded and was killed. What is the paint? Why is such a type used? These are the questions we want answering. Immediately the journey was over we telephoned a Ministry of Transport official. To the Ministry's credit immediate action has been taken, but when, may we ask, can we expect to see the last of such traps? We class this sort of thing on a par with the crass stupidity of relaying roads with wood block surfaces minus a non-skid surface. Lives are being squandered almost daily. The position is fantastic."

"THE ROYAL TANK REGIMENT just about swept the board in the Army Championship Trials held last Friday and Saturday. They were first and second in the team championship, one team won the cross-country riding, the other the reliability test and the only team to run them close was, very appropriately, the 20th Anti-Tank Regiment, Royal Artillery. The success of the Royal Tank Regiment and the riding of their teams provided interesting proof of the value civilian trials have been, for the men concerned are all among those who have taken part in trial after trial. Like the first Army Championships, which were held last October, the event last week was run in the

Aldershot area and had been preceded by eliminating trials in the form of Command events. Forty-two teams of three took part, 35 of them on 16H Nortons, four on 347cc Matchlesses, and two on 350cc side-valve Triumphs, while one contained a couple of Triumphs and one Matchless. The winning Royal Tank Regiment teams were on Nortons. All teams were, of course, using WD machines."



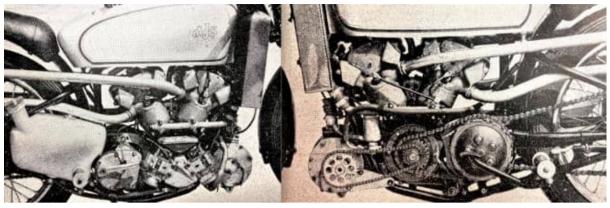
"Among the tests on the cross-country section was that of heaving machines by teams over this pile of logs." (Right) "Cpl R Wright, 2nd Bn Wiltshire Regt, in the water-filled 'shell hole' at the foot of the 1 in 1 drop, which was included on the second day."

"AN AIR OF MYSTERY has surrounded the experimental department of the AJS works during the winter months...Rumours have trickled through about a new racing multi, but details of the machine and the firm's plans for it have been kept a close secret. Last week, however, the first of the experimental machines was seen in the flesh, for Matt Wright, of the AJS experimental department, was down at Brooklands with Bob Foster trying out the machine for springing, riding position and general handling before it is taken to Donington for tests with straight-through exhaust pipes...Instead of the separate air-cooled cylinders each bolted to the crankcase, there are now two liquidcooled cylinder blocks, one for the front pair of cylinders and one for the rear. They are of aluminium with steel liners and the detachable heads have hardened valve inserts. The whole of the rocker and valve gear is totally enclosed. Long valve-spring boxes run across the cylinder heads on each side of the enclosed camshaft, and the hairpin valve springs are therefore fully enclosed. As liquid cooling is employed, the exhaust ports are at the rear of each cylinder and the exhaust system is far neater. The Brooklands silencers were, of course, only in position for Brooklands testing and the scheme is to use the machine with plain straight-through pipes.



"Bob Foster, who, with Walter Rusk, is named as a rider of the four-cylinder machine in the Senior TT, poses on the new model."

The induction ports are at the front of each cylinder and the induction pipe from the 'blower' is led up in front of the engine to feed the front cylinders and continues over the top of the front block and down to the induction ports of the rear block. The new unit looks extremely neat and workmanlike, and everyone will look forward with interest to see whether it appears in the TT in this form. The gear box is a racing-type Burman, and the whole unit is mounted in a new duplex-cradle frame with new rear springing. The main duplex members run from the steering head underneath the engine and gear box and back to the bottom ends of vertical spring boxes. The boxes are anchored at their top ends to the rear ends of the saddle tubes. Each spring box contains a vertical guide, and the sub-frame which carries the wheel and is pivoted behind the gear box is allowed vertical movement in the guides. A single spring is employed in each box."



"This view clearly shows the arrangement of the valve spring enclosure and the offside bottom water pipe which feeds the blocks. Note also the twin bevel-driven magnetos." (Right) "The driving side of the new liquid-cooled four-cylinder AJS showing the supercharger drive and carburettor mounting. Note how the rear exhaust pipe passes inside the frame."

"IN VIEW OF THE FACT that quite a number of motor cyclists are in the 20-21 years of age category it is only natural that an appreciable percentage of readers are wondering whether they can put their motor cycle experience to good use. Last week-end, therefore, a member of the staff went round to the War Office to have a chat and learn what their position is. Naturally, so far as the Militia is concerned, matters are still a little indefinite. He was told, however, that it is anticipated that wherever possible the wishes of those called up would be met. Each man will be asked which unit he wishes to join, and if, as a result, the experienced motor cyclist is not drafted to some completely mechanised unit, he will at least, assuming that he has the necessary knowledge, find that he has something interesting on wheels to play with—that is what we are told: he will not merely be infantry in cases where he has the knowledge. And this we gather will also apply to those who, instead of going on the Reserve following their training, join the Territorial Army. With the institution of motor cyclist battalions there are fresh opportunities; thus in one way or another there is hope that those who have specialised knowledge will find that it is given full rein. Incidentally...we are informed that Army motor cyclists will have the use of their WD machines on their weekly day's leave—that they can spend their leisure in civvies using their machines and WD petrol and oil. As I have seen from many recent trips with the Army, the soldier of to-day is very, very different from the soldier of even three or four years ago. There are large numbers of lads who, I am quite certain, are going to enjoy themselves."

"EVERY NOW AND THEN I see pictures taken on club runs held in the United States. In the USA the practice is for clubs to have their own special uniform—even pillion riders wear uniform. One photograph I have just been examining shows the men and girls lined up in a 'neat club' contest. They are wearing highly polished hunting-type boots, dark breeches, shirts, long-flowing ties and Glengarries. In another picture the breeches and shirts are white and set off by dark boots, belts and ties; in this case the caps are of

military shape, white with dark peaks. Somehow I cannot see clubs over here going in for anything flashy. All the same, there should be no great difficulty in clubs standardising a smart serviceable kit. To my mind, such a scheme is well worth a little thought on the part of individual clubs."—Ixion.

"I CAN ADD SOMETHING to Torrens' arguments in favour of spring frames. One of the saddest facts about increasing years is that we can no longer 'take it' as we did when we were young. My longest run in a day was accomplished when I was past my first youth, and totted up to 534 miles. Athlete though I was, and young as I was compared with what I am now, I'd had plenty before I finished. The last 100 miles were by no means jam; and the next day every joint in my body creaked. I got out of a chair thoughtfully, I shrank from physical exertion, and nothing would have induced me to take the model out. To-day I simply could not do 534 miles in a day; the physical fatigue would be too much for me. But I have proved to my own satisfaction that I can ride much farther in the day on a good spring frame than I can on a rigid rear frame."—Ixion.



"Probably never have Scottish Six Days competitors passed through so much glorious scenery as on last week's trial. This particular glimpse is of R Wilkinson (348cc Panther) high above the shores of Loch Moidart."

"THERE IS NO DOUBT whatever that the Scottish Six Days Trial has an atmosphere peculiarly its own. It was evident last Sunday at Player's Garage in Edinburgh, where the weighing-out took place in glorious sunshine. This sunshine brought competitors out into the open, and the usual last-minute activity was carried on in the forecourt of the garage. There was tyre changing, plug checking, and, of course, filling-up with petrol and oil. There were, however, surprisingly few of the last-minute major repairs that are

usually a feature of the 'Scottish', for most people had come with their models well prepared for a week that promises to be the most strenuous yet. Among those fortunates who are able to choose what type of machine to ride, light 250s are the order of the week. Of the dozen or so men who are each capable of winning the trial, seven are on this class of machine. The team of 250cc Rudges, which are being ridden by MacGregor, Edward and Leslie, were all beautifully prepared and looked really light. GF Povey had a lightweight type speedometer on his 248cc Ariel, mounted low down on the forks where it would not affect his vision or the steering. Gadgets were the exception rather than the rule, but WA West had a really neat chain oiler, which weighs only one ounce, on his Ariel. It is made from a celluloid cycle pump barrel filled with coarse felt, and the felt is saturated with oil. A narrow-bore flexible pipe leads to the rear chain. Air bottles or large tyre pumps rigidly fixed for use in situ were to be found on nearly all the machines. A neat method of fixing the pump had been discovered by CR Bates (348cc BSA), who had the pump secured to the rear mudguard stays with Jubilee clips. Air cleaners were also very much in evidence—a direct result of recent 'Scottishes' and 'Internationals'. Strangely enough, the spares question seemed to be causing little heart-burning. A spare fork spring, footrest hanger, and a few spokes were all that most

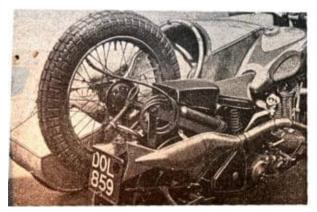




"Ready for quick use: how SE Cunningham (249cc Ariel) arranged his tools on the tanktop." (Right) Another get-at-able workshop: the carrier of GD Walkey's 347cc AJS."

people had, and the 'Christmas-tree' effect of a few years ago when spares were hung on in every conceivable place was pleasantly absent. Tools, however, were much in evidence, and the popular mounting was on the petrol tank with the tools held in Sorbo by rubber bands. SF Cunningham (248cc Ariel) had a large sheet of rubber to protect his tools from the weather...But the unusual feature of the weighing-out was the presence of the twelve Army machines with attendant truck and Army officials. There were four teams, one on Nortons, one on BSAs, one on Triumphs, and the fourth on Matchlesses, and all are standard Service machines. Lamps had been removed and some spares had been attached, but otherwise they were as used for normal Service work. By one o'clock nearly everyone had weighed-out, and only Harold Flook had obtained an extension—he had smashed his gear box while practising on Stoney Brae earlier in the morning...MONDAY: A slight drizzle was falling from leaden skies when the competitors came down for breakfast on this, the first day of the trial...it was very cold. Twenty miles

after Linlithgow the riders passed over Kincardine Bridge to the new hill, Culross, which seemed to rise almost from the banks of the Forth. It is a stony climb with watery mud about the surface. In parts the mud was tricky, but there was a hard path, and out of the first 20 men only one lost marks...MacGregor had to fight some wheelspin and GE Godber-Ford (496cc Sunbeam) had one nasty wobble about half-way up...A little later T Mooney (497cc Ariel) gave just one dab and was very cross with himself for the lapse. Immediately after Culross the well-known 'Scottish' process of trying to disintegrate the models began. Instead of following the main road to Perth, the route struck out over the moors and included rough, rocky tracks, woodland paths and miles of third-class roads. M. Melough (496cc Sunbeam), who had got bogged at the top of Culross through taking the wrong turning, was not the only one who had to hurry to keep to schedule. When Stoney Brae was reached there was a general feeling of relief that the terror was at last to be tackled. The hill was dry and certainly easier than it has ever been since its inclusion in the 'Scottish'...The S-bend did not cause the trouble, and SE Cunningham (249cc Ariel) showed that even the worst could be ridden over feet-up. GE Eighteen (348cc Matchless) went very slowly in places, but retained





"How the spare wheel and air cylinder were carried on an experienced trialman's 497cc Ariel and sidecar—that of WJ Stocker." (Right) "A large and effective looking air-cleaner is fitted to the carburettor of the Army BSAs."

mastery over his mount. One very surprising failure was that of Allan Jefferies (349cc Triumph), who struck a rock while rounding the second bend and came suddenly to earth. Len Heath spoiled the Ariel team's clean sheet with a stop at the top; JC Edward, of the Rudge team, footed when the model got too near the bank; and J. E Breffitt, of the Norton team, stopped at the top after a neat climb of the lower stretches. GD Walkey (347cc AJS) got over the worst, then stopped on the easy part...The first Army man to arrive, Pte JL Wood (BSA), charged a huge rock near the top and failed, and L/Sgt J Dalby (490 Norton) had to use his feet hurriedly. Masterly handling of his machine by Pte. R. Scovell (490 Norton) saved a failure several times, but he had to foot once. Bdr T Tracey (490cc Norton) was much faster than most, but right at the top his high speed caused his downfall...As last year, there was no halt at the top of Stoney Brae. Competitors made a loop through the woods and rejoined the track just below the start of the

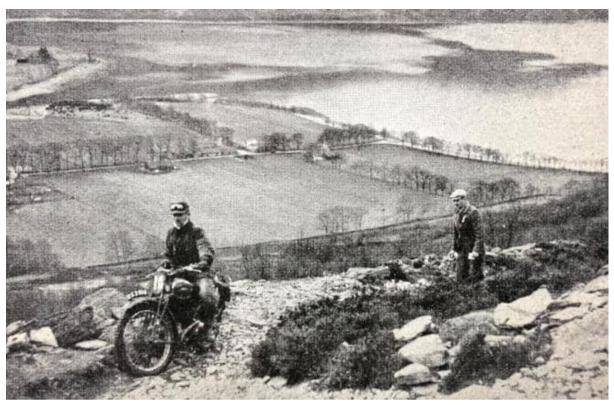
observed section. A few miles of main road followed, and then the route struck off again over Amulree—a rough moorland road, which once included a test hill...At the top of Amulree the competitors were faced with a grand view of snow-capped mountains, and as they bumped their way down to Kenmore, Loch Tay came into view. At the bottom of the descent, the road along the south side of the loch was followed to Cambussurich, the last hill of the day. The hill was dry, for the sun was shining strongly now, but there was some slime on the two bends. As usual the lower, reaches caused the most bother. and lots of people had trouble at one spot where there was only a very narrow track through rock ledges. WA West (497cc Ariel) picked his way confidently round the ledges, but LG Holdsworth (346cc Royal Enfield) tried to ride through the gap and his engine stalled on the rocks. WT Tiffen, Jnr (348cc Velocette) gave a wonderful display of throttle control, and JJ Booker (348cc Royal Enfield) was equally good...VN Brittain (490cc Norton) made a perfect climb standing on the rests, but JE Breffitt (348cc Norton) shot up the bank after hitting the rocks, and only just got back on the track again without footing...Miss M Cottle (249cc Triumph) had very hard luck, for she fell after getting over the rock-garden feet-up. L/Sgt FM Rist (BSA) was in the expert class on the first bend. Incidentally, all three Army BSAs grounded their silencers on the rocks...



"A glimpse of the competitors from an unusual angle. No 53 is H Brown (347cc AJS) and No 54, J Hogg (349cc Triumph)."

Sidecars found the hill difficult Only DB Gunn (497cc Ariel sc) got up non-stop without footing. Three reached the top with a single 'foot': HJFlook (Norton sc), HR Taylor (Ariel sc) and FH Whittle (Panther sc). The moorland stretch from the summit was very boggy

and several competitors, particularly men with later numbers, got stuck and had to receive a helping hand. It seemed that after the lunch stop at Killin it would be an easy, straightforward run to Fort William, the finish of the day's trek, for there were no observed sections to be tackled. Instead, however, there was a scheduled speed of 40mph which taxed the smaller engines considerably. **TUESDAY:** For the first time since it has been included in the 'Scottish' the pony track between Kinlochmoidart and Lochailort was covered twice by competitors in the same day. Fort William was left in glorious sunshine that prevailed throughout the day, and which made the run extremely pleasant, in spite of its strenuous nature. The route led round Loch Eil and back along the opposite shores of Loch Linnhe to Ardgour, but on this 34-mile stretch the road was being remade. On these little-used Highland roads the road-makers tear up the whole lot for reconstruction work, and so for about 15 out of the 30 miles the road was little more than an observed section, and for long stretches the surface consisted of unrolled rocks. For most riders the average of 30mph was impossible, and the organisers allowed an extra 15 minutes on schedule time. By comparison the road to Kinlochmoidart seemed like an A1, but it was twisty and loose in parts, so that there was little opportunity for gazing at the magnificent views of Loch Sunart that were presented at almost every turn. Besides, most competitors were thinking about the notorious Devil's Staircase, which was the first hill of the day, and, of the rocky track that had to be covered afterwards. Actually, the Staircase was dry and only on the lower reaches where there was a 'dead section' was there much loose slate on the surface. The three bends were as formidable as ever, and there was much speculation among the fifty-odd spectators, many of whom had come long distances, as to whether the hill would be climbed clean for the first time in the history of the trial. Their speculations were soon to be settled, for three men achieved the almost impossible and got up without removing their feet from the rests. These super experts in the art of throttle and machine control were GK Baird (497cc Ariel), A Jefferies (349cc Triumph), and CN Rogers (248cc Royal Enfield). Baird had the honour of being the first man to climb the hill clean. He gave a magnificent display of clutch control, almost stopping after each bend to get placed well for the next. How he was applauded by the crowd!



"Don't go over the top! GK Baird (497cc Ariel) seems temporarily to find a fatal fascination in the drop over one side of the awe-inspiring Kinloch Rannoch track."

Jefferies and Rogers made their climbs one after the other later in the entry and both were magnificent in the way they handled their machines round these three very acute bends. Jefferies obviously gained confidence after turning the bottom bend successfully and got his machine over at amazing angles on the higher bends without even looking like taking his feet from the rests. Rogers had an easier passage, but it was obvious from his expression that he was using every ounce of concentration that he possessed. These three outstanding climbs tended to overshadow the excellent performances put up by several other competitors. Those who attempted to round the bottom bend feet-up and got into difficulties usually footed all the way up the hill...Right at the end of the entry, KM Hurst (498cc Levis) made a very good show, rounding the first and second bends clean and only footing after an awkward moment near the top. K Pugh (348cc Norton) arrived late, having had a puncture, and he was content to get up non-stop. From the top of the hill there were 12 miles of rocks, steep descents and sharp climbs. The newcomers to the trial had their first experience of real 'Scottish' rough-stuff, and judging from the oil that was seen on the track afterwards many had grounded often. The other observed hills were easy by comparison with the Devil's Staircase, and the 'sting' was reserved for the return journey. But CN Rogers had a foot on Bay Hill and thus the last clean sheet was lost. On the way to Lochailort JD Barber (499cc BSA) had ignition trouble and at Lochailort he decided to retire. On the return trip across this section was a hill which has been known in the past as The Ravine; it has been renamed School House, and was extremely difficult. The climb consists of two very sharp

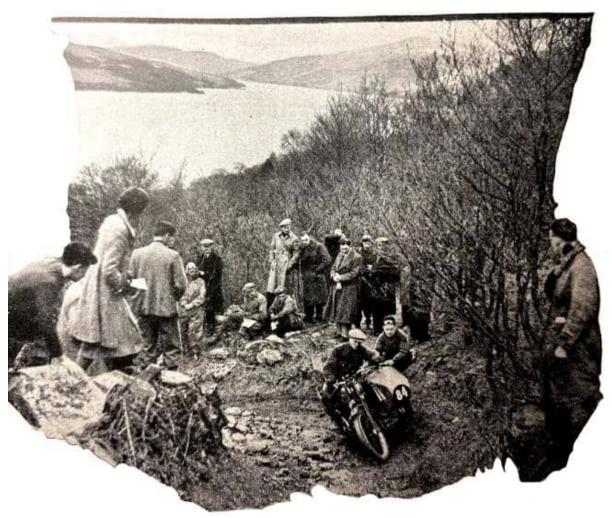
hairpins with barely a machine's length between them. There were two sub-sections, and no one did the first clean. It was a case of footing on the first and 'getting them on the rests' for the second, and those who tried to do the bottom section feet-up usually footed on the top one as well. One exception was J Midgley (346cc Royal Enfield), who got round the first bend clean and nearly lost the plot over the edge; he made a magnificent recovery and almost did the top section clean. GK Baird (497cc Ariel) was again outstanding, but he footed just the same, and J Cox (346cc Levis) did well to cover the top section clean after a hectic passage on the lower reaches. **WEDNESDAY:** At 11.30 on



"On the top of things: a new-angle shot of JC Edward (245cc Rudge) on Corran Hill." (Right) "Up on the rests and up Kinloch Rannoch: An impression of JE Breffitt (348cc Norton), who appears to be wearing a kind of Elizabethan ruff around his neck!"

Tuesday night the committee of the organising club dropped a bombshell on those members of the party who were still up. It was announced that instead of covering the new ground at Kinlochourn, Friday's route would be covered, and instead of the 9am start the first man would leave at eight. For a while there was confusion while sleeping officials and competitors were roused in the hotels in the town and told of the altered plans, but eventually all had grasped the new arrangement, and at 8am everyone was about. The morning promised to be fine, for the sun was brilliant as the competitors walked to the garage, but as they struck north and then west, heavy clouds came up and the wind grew cold, although the rain actually held off all day. The route ran alongside Loch Laggan and then branched west for Dalwhinnie and Trinafour, the old trials hill, which was descended. The morning objective was Kinloch Rannoch, the hill that was used for the first time last year. It is a long, winding climb up a mountainside, and after stones, gullies and rocks in the lower reaches it culminates in a sharp hairpin with a rock-garden surface. The outside of the hairpin was greasy, and the grease was soon carried on to the rocks, making them slippery. Again only the super-stars managed and only four were registered. the first man up, AA Sanders (346cc Levis), fell heavily on the corner. GR Rowley (348cc AJS) had to touch once to save the front wheel going over the edge, but R MacGregor (245cc Rudge) never hesitated an instant as to the path he should take, and he made the first clean climb. ID MacIntyre (348cc BSA) required just a

dab, but H Sim (349cc Triumph) rode straight over the huge rock ledges and made no mistakes. GG Godber-Ford (496cc Sunbeam) made a very good show, particularly as it was the first time he had ever seen the hill. GE Eighteen's performance on his Matchless was really brilliant. He took the path over the slabs and cleverly mastered the machine's attempts to lie down. WJ Smith (346cc Levis) knew the path over the slabs and took it fairly quickly, but Len Heath (348cc Ariel) spoilt a brilliant climb by dabbing before the corner. As the trial progressed the hill became much more difficult, and the mud at the bottom caught several men napping. Early competitors watched the later men at the bad corner, because everyone had to stop at the top and return down the hill again after the last man. Everyone applauded Jack Amott (249cc BSA) as he motored briskly over the slabs. Both Jefferies and Rogers were watched with special interest, because they were leading the trial, but Allan footed and Rogers stopped—momentarily. There were a few outstanding climbs among the later



"DB Gunn (497cc Ariel sc) uses the banking' as he negotiates a hairpin bend on Cambussurich."

men and the best was by Vic Brittain (490 Norton), who showed the not-so-expert just how a throttle should be handled on greasy rocks—even the experts clapped heartily.

WA West (497cc Ariel) also was clapped for a fine show that ended with a foot right at the end of the section. The sidecars tackled only the lower stretches, for the track is too narrow at the top for passenger machines. A right-hand bend and a mud patch proved the worst. FC Perks (348cc BSA sc) just screamed through the mud, and HR Taylor (497cc Ariel sc) was quite at home on this type of going. Lower down the hill, WS Waycott (495cc Velocette sc) and WJ Stocker (497cc Ariel sc) were excellent, but both FA Whittle (598cc Panther sc) and HJ Flook (596cc Norton sc) got into difficulties. H Tozer (496cc BSA sc) made light of the whole thing. From the bottom of the hill competitors headed for Killin, but instead of taking the main road the route led over the rough track through Glen Lyon. The check at Killin proved to be tight, and those who were late delayed filling up with petrol and oil until after lunch. In the afternoon the same route was followed as on Monday, through Glen Coe and as far as Kinlochleven. But there the solos forsook the road for the famous track built by General Wade and known as Mamore. This stony road rises nearly 1,000ft, twisting and snaking all the way. One right-hand bend was extremely difficult, for there was a rock step to be climbed before the bend and a mass of loose shale afterwards, with only one hard path over some large rocks. For the early numbers the hill was not too difficult, but it got cut up as the trial progressed and a clean climb among the late men was a fine feat. Vic Brittain was again superb and obviously right on his form. C Holden (249cc BSA) was very nearly as good, and LG Holdsworth (346cc Royal Enfield), after a great fight on the loose shale, eventually mastered the situation. Easily the most impressive climbs were made by the BSA Army team. They arrived when the hill was in a bad condition and proceeded to make three perfect climbs. The riders were L/Sgt FM Rist, L/Cpl AC Doyle, and Pte JL Wood. The crowd clapped long after they were out of earshot. The sidecars by-passed the hill and went straight on to Fort William, while the solos bounced and banged their way over the rough track and entered the town by another road. They were, however, without JE Breffitt (348cc Norton) and K Pugh (348cc Norton), both of whom had retired in the Glen Coe section—Breffitt with a broken valve spring and Pugh with a broken push-rod.

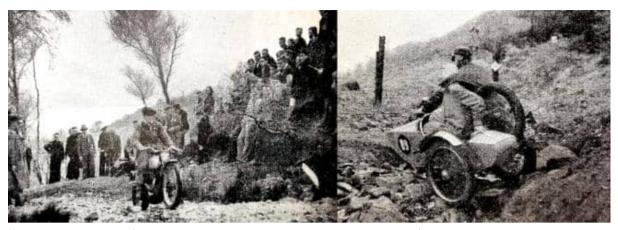
**THURSDAY:** Shades of the Scott Trial and the Alps! Nothing like this day's run has ever before been included in the 'Scottish' or any other trial in Great Britain. The scenery encountered almost beggars



"The Army tries Scottish mud: BQMS DA Mackay (Matchless), Military College of Science, looks a little doubtful as he ploughs through a morass on the Kinloch Rannoch section." (Right) "JR Allen (349cc Coventry Eagle) climbs the winding Kinlochourn section, amid scenes of the wildest beauty."

description, while the severity of the observed sections staggered even the hardened old hands. The cross-country section was severe, but perfectly fair. The route covered was that originally scheduled for Wednesday. Competitors left Fort William on the Fort Augustus road in a chilly rain, which was the only fly in the ointment of a thoroughly interesting day. At Invergarry they forked left on to the main road to Skye, and after the check at Tomdoun, set off on the 17-mile stretch of atrocious road to Kinlochourn. Here was the first of the new finds in the way of observed hills. It begins with a perfectly-kept path through an estate, but the gradient is very severe right from the start. It twists and turns up through woods and out of the estate up the mountainside, and as it rises the bends become more acute and the gradient more severe. The surface is mainly smooth and hard, but its severity can be judged from the fact that none came anywhere near doing all of the eight observed sections clean. The hill was amazingly hard on engines, and the 250s often required assistance from their riders. One of the best performances was that of ID MacIntyre (348cc BSA), who only footed on the bends. J Midgley (349cc Royal Enfield) rode over the edge just before the worst bend, which was near the top, and on the lower stretches J Cox (346cc Levis) toppled right down the bank, machine and all. Many of the riders were obviously nervous; and not without reason, for the hill was a frightening sight from the bottom, appearing to disappear in a cleft between two mountains. As a result, many people footed for safety. Some, however, made valiant attempts; among them were Allan Jefferies (349cc Triumph), who was clean on the worst section; Len Heath (347cc Ariel), who did the same after a stop lower down; and RT Newbery (348cc Triumph), who was one of very few to round the S-bend clean, only

to stop later in a ditch. RD Humber (249 Triumph) was amazingly good in spite of his one leg, and he footed confidently in the awkward places...J Hogg (349cc Triumph) said 'Oh!' as his machine shot over the side near the top. From the top of the hill the track led over some of the wildest and most magnificent country in Scotland. Some idea of the desolate conditions can be gathered from the fact that there was a dead stag on the hill, which a keeper said had died from malnutrition. An 'observed section' card was hung on the stag's antlers, and afterwards the antlers were removed as a trophy. Eight miles of wild moorland country were then covered. The track snaked, dived and swerved in a bewildering fashion, crossing streams and boggy land, with magnificent moorland panoramas. Two wide rivers had to he forded, and in one of these JC Edward (245cc Rudge) fell and took a long time to get away again. Later, the track ran alongside a river, crossed it, and continued along the other side over boulder-strewn ground reminiscent of the Scott Trial country. Farther on the track ran alongside a loch, and here H Sim (349cc Triumph) went over the side and the machine dug a hole in his leg. He got out of the water with great difficulty and pluckily carried on. J Midgley (349cc Royal Enfield) rode most of the section with broken handle-bar clips, and nearly everyone had incidents of some kind. Near the end of the section competitors descended a very steep. twisty hill, with a magnificent waterfall almost splashing on to the track, and after negotiating an amazing rock causeway reminiscent of stories of lost worlds, they zigzagged down the 16 hairpin bends of Corran. The sidecars, which had followed a different route from the start, had to climb this hill, and although all the drivers shook their heads and said it was 'impossible', FH Whittle (598cc Panther sc) proceeded to give a wonderful demonstration of sidecar driving. He judged each of the 16 bends perfectly and suffered no crabbing...easily the best, apart from Whittle, was WJ Stocker (497cc Ariel sc), who, after a stop at the bottom, cleverly coaxed his high-geared outfit up the hill with the aid of his extremely plucky lady passenger. The sidecars turned round at the top of the hill and followed the solos back to the main road to Skye, which was followed as far as Fort William. Again the scenery was breath-taking, but the road was breath-taking, too, for there were 60 miles of bumps. At Fort William, Town Hall Brae was tackled, and as the hill was greasy it caused lots of bother but, to the huge delight of the large crowd, Miss M Cottle (249cc Triumph) made a perfect climb. Stocker was the only



"Mamore never fails to attract a gallery: Here they are watching JH Wood (349cc Triumph), who is eyeing the surface thoughtfully." (Right) "0o-o-mp! That gave the sidecar chassis what's what! WJ Stocker (497cc Ariel sc) bumps over a dried-up watercourse on the Kinloch Rannoch section."

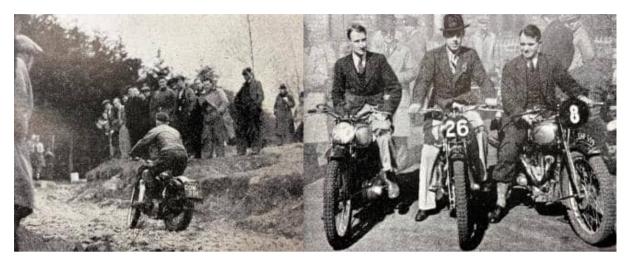
sidecar driver to get up; Flook capsized his outfit on the crest of the hill. FRIDAY: The results of Thursday's run as good as decided the destination of most of the awards, and those competitors in the running for one of the premier awards knew that the supreme effort would have to be made on Friday. Vic Brittain started the day leading the trial, with Allan Jefferies only two marks behind. In the sidecar class, however, Whittle's magnificent climb of Corran on Thursday had put him well in the lead, for Stocker was five marks behind. In the morning the sidecars left Fort William 1½ hours before the solos. The reason was that they had a considerably greater mileage to cover. For the sidecars it was the same route as on Thursday, but the solo men followed Thursday's route in the reverse direction. The greater part of it was the famous Road to the Isles the road to Skye—which branches off the main road to the North at Invergarry and runs through magnificent moorland country to Shiel Bridge. Herds of deer were seen grazing on the moors as the riders passed through Glen Shiel, and at the lunch stop at Glenelg everyone remarked on the wildness of the country and, incidentally, of the road, which had been rough and loose nearly au the way. A few people had time to pause at the bottom of the old test hill...Less than a mile from Corran Hill the track dipped steeply. The competitors then crossed a footbridge and rode over a rock causeway almost to the foot of a beautiful waterfall. The observed section, Falls Hill, ran up the side of the fall and consisted of two loose bends, both very steep. On this hill Allan Jefferies virtually won the trial, for he gave his most brilliant display of riding in a brilliant week. Knowing that everything depended on his performance, he ran up to look at the hill before making his attempt. He was told that so far everyone had footed or failed, but he decided to make a feet-up attempt in spite of that. His tyres were very soft and he got round the first bend without wheelspin. Using the edge of the track, he eased the model round the second corner and opened up sharply; the back tyre bit into the ground and the machine shot away and



"Skill and sangfroid: These two attributes of the crack rider are strongly suggested by the very pose of Vic Brittain (490cc Norton) on Kinloch Rannoch. Note the soft rear tyre." (Right) "Clerk of the Course, Bert Moir, in full Highland costume, steps clear as J Midgley (349cc Royal Enfield) climbs Falls Hill."

over the rocks with Allan using every ounce of his skill to keep the machine on the track and his feet on the rests. As he passed the 'ends' card the little crowd clapped enthusiastically. It was a marvellous show. SATURDAY: A glorious morning greeted the competitors as they walked from their hotels to the official garage in Fort William for the last time in the trial. As the long cavalcade headed south through Glencoe everyone experienced a little pang at leaving such glorious country. There was more than a pang for Jack White, who in Glencoe found that his front wheel was wobbling, although he was holding the handlebars quite steady! Examination showed that the near-side fork blades had fractured. Jack rode his machine gently to Taymouth and retired there. Glencoe was also the finishing point for Stuart Waycott, for the con-rod broke and pushed its way through the crankcase. No other incidents were reported until Taymouth was reached, and this hill, although wet and greasy, did not cause much bother. None of the star men made any mistakes, but the greasy rocks caused quite a number to foot. The hill cost one man his silver cup. He was HD Cartwright (348cc BSA), whose marks on Friday night just kept him in the cup standard. But on Taymouth he footed on the lower section and stopped on the top one... After lunch at Amulree it was a straightforward run to Edinburgh and the finish at Blackford Hill. For two men, however, it was far from uneventful. George Eighteen collided with a child near Kincardine Bridge, fortunately without serious injury to either, but the delay made him late at the finish. The other man who had trouble was 2-Lt DR Horsfield (349cc Triumph), who blew a cylinderhead gasket just outside Crieff. He took the machine to a garage, took off the head, and made and fitted another gasket. The stop-and-restart test and brake test held on Blackford Hill were watched by the usual interested crowd, but only three men fell from grace here. All that remained was the final examination of machines, which this year

was rapidly carried out by a batch of scrutineers. It is to the great credit of British manufacturers that very few people lost marks on condition after such a strenuous week. Altogether, only six solos and one sidecar lost marks for trivial faults. By four o'clock the trial was over and everyone had departed to their

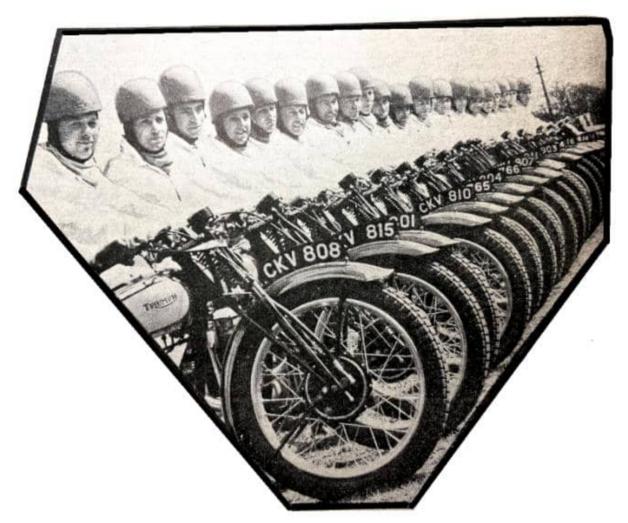


"ID MacIntyre (348cc BSA) stands on the footrests as he tackles Stoney Brae. Note the loose, rocky surface." (Right) "The Triumph team won the manufacturers' team competition. Here are the riders (L-R): JH Wood, A Jefferies and H Sim. Allan Jefferies made best solo performance of the whole trial."

various hotels. In the evening there was a concert and the presentation of awards by Lt-Col CV Bennett, who had followed the trial throughout the week on a spring-frame Norton. After the speeches and cheering and good-humoured banter, Len Heath thanked the Club on behalf of the competitors, and Lt-Col. Bennett thanked everyone for the help given to the Army riders. Finally, George Simpson gave a film show which included a 'shot' of the trial which had just finished. So, except for revelries, another enjoyable 'Scottish' was over. **SPECIAL AWARDS:** Castle Trophy (best solo performance): A Jefferies (349cc Triumph), 23 marks lost. Macnaughton Trophy (best sidecar performance): FH Whittle (598cc Panther sc), 29. 250cc Cup: CN Rogers (248cc Royal Enfield), 26. 350cc Cup: WJ Smith (346cc Levis), 35. 500cc Cup: VN Brittain (490cc Norton), 24. 350cc Sidecar Cup: FC Perks (348cc BSA sc), 53. 500cc.Sidecar Cup: WJ Stocker (497cc Ariel sc), 49. Manufacturers' Team Prize: Triumph (A Jefferies, JH Wood, H. Sim). Club Team Prize: Birmingham MCC (VN Brittain, LG Holdsworth, GF Povey). Army Team Award: BSA Team (L-Sgt FM Rist, L-Cpl AC Doyle, Pte JL Wood."

"LAST WEEK'S SCOTTISH Six Days Trial proved by far the most strenuous of recent years. How difficult it was is shown by the number of marks competitors lost. Whereas the winner of last year's event was debited with only four marks, this time the figure was 23, while even those who lost as many as 60 marks still gained silver cups. The Edinburgh & District MC is to be congratulated upon its choice of route. The new ground that was covered proved really difficult without being impossible, while from the scenic point of view it included the best that Scotland has to offer. The organisers used more

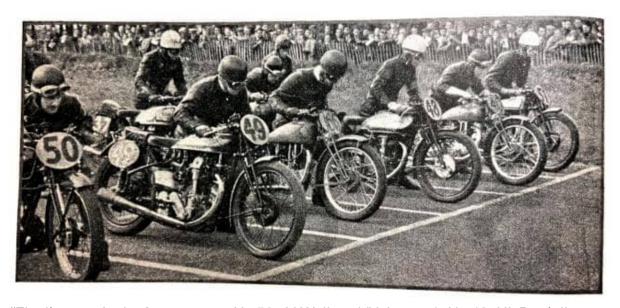
tracks and third-class roads than ever before. On three of the six days competitors were only on first-class roads for a very few miles and for the rest of the mileage machines were buffeted over pot-holes and rocks and thrashed up and down steep hills in a way that tested every part to the utmost. Any weaknesses were quickly shown up, and as the speed schedules were high over these sections there was little time for competitors to carry out adjustments or to fit replacements. Under such a gruelling it is surprising that there were not more retirements. It is also a tribute to modern motor cycles that only seven competitors lost marks on the condition of their machines at the end of the week. From the point of view of reliability the outstanding feature of the trial was the performance of the Army competitors. Twelve Army riders started on standard Service machines and the 12 machines came through the week without losing a single mark on condition. If the trial was rather too strenuous to be called a holiday, it was a thoroughly sporting event and from every point of view a complete success."



"This team of despatch riders from the Signal Training Centre, Catterick is now appearing at the Royal Tournament, Olympia.

"THOSE OF US WHO LIVE in the Midlands looked with gloom on the weather which prevailed last Friday. From early morning to late afternoon rain poured down, and when

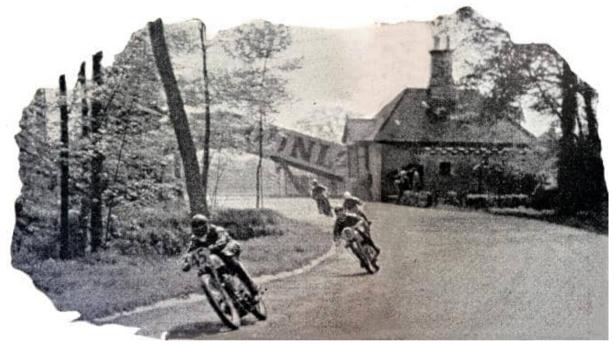
darkness fell things looked anything but promising for the 'Clubman's' day at Donington on the morrow. As it happened, Saturday morning dawned very misty, but there was a heavy dew and every promise of a fine day. This promise was fulfilled, and the day at Donington was one of the most perfect for racing that could be imagined. There was a preliminary to the racing, for the sponsors of the meeting, *Motor Cycling*, had sent out invitations to the heads of all motor cycle manufacturing firms and hoped that as many as possible would turn out on the machines they manufacture. The response to this call was remarkably good, and at the first rendezvous at Ashby-de-la-Zouch there was a truly noble gathering. One after another these Captains of Industry rolled up on every type of machine, from autocycles to hot-stuff singles, twins and fours. It was easy for the observer to determine between those who make a regular practice of using motor cycles and



"The line-up: In the front row are No 50, AJ Wellsted (Velocette); No 49, HL Daniell (Norton); No 166, S Wood (OK Supreme; No 48, J White (Norton); No 40, JSA Humphries (OK Supreme); and No 51, J Lockett (Norton)."

those for whom this was an unusual occasion, and it was sad, perhaps, to note the number of brand new coats, boots, gloves, goggles and headgear. However, it is safe to say that every one of them was enjoying the experience of discovering exactly what the customer has to put up with! Just after noon this brave cavalcade descended upon the famous Donington Park, where they sat down to lunch in the Hall with (probably) unusually keen appetites after their journey through the lovely spring air. Then the organisation was handed over to Fred Craner and his merry men, who got down to business and set the ball rolling to the very tick of the advertised time, 2pm. Throughout the afternoon racing was excellent, and it was a pity there was not bigger crowd to watch the excellent riding of such men as Archer, Wellsted and Daniell, and a host of others. From the fall of the flag Leslie Archer and his New Imperial had complete control of the 250cc event with which the afternoon opened. Tyre11 Smith (Excelsior) hung on

to the leader for a time and both riders were running close to record. The gap widened, however, and Archer was never really troubled. Behind there two was RL Graham (OK Supreme), just a little too slow, but nicely placed should one of the leaders experience trouble. Archer went on to win and to deal the 250cc eight-lap record a crack—a feat which Tyrell Smith only just failed to accomplish. One of the objects of this Donington meeting was to provide clubmen with an opportunity to race together over this famous circuit unhampered by expert competition or specially prepared machines. The next event was in this category—a four-lap race for clubmen on machines up to 350cc capacity. There was an excellent turn-out, and several of the riders showed great promise.



"LJ Archer (249cc New Imperial) leads T Collier (249cc CTS) and two other riders through Holly Wood on the 25-mile 250cc race."

One might single out the winner, AM Simpson (Velocette), and WS Corley (Triumph), who finished in fifth place. Some of the riding was a little ragged and impetuous, but on the whole it was beyond criticism. Simpson rather overshadowed his rivals and romped away with the race in a dashing manner. The next race was a 350cc event for experts and was over eight laps. The first heat was by no means slow, n spite of the fact that only one rider managed to get into the final placings. This was J Wilkinson (Norton), who ran through the field to lead his heat and finish at 68.05mph. He had a great battle with GG Murdoch (Norton), but was not to be denied. In Heat 2 the 'big shots' appeared and an exceedingly good race was the result. At first, J Lockett (Norton) headed the procession with Harold Daniell (Norton) keeping a close second. Then, on the third lap, AJ Wellsted turned the taps of his Velocette right open, laughed Lockett and Daniell aside and shot into first place. By the end of the sixth lap Wellsted was well ahead and Lockett had disappeared. It was noticed that P Goodman (Velocette) was creeping up

on Daniell, and soon this youngster robbed the veteran Norton rider of second place. It was a grand race and Wellsted had the satisfaction of beating the 350cc eight-lap record by practically a mile an hour. Next came an eight-lap sidecar event, which at one time looked like being thrilling, but which turned out rather tame. In accordance with his usual practice, AH Horton (596cc Norton sc) jumped into the lead and, again as usual, was chased by LW Taylor on a similar outfit. Taylor gradually closed up, and just when it appeared he would, get in front a broken frame put him out of the race. A Morgan driven by G Hale was going great guns and finished second. The next event was for machines manufactured before 1931. There were only seven starters, and of these one failed to get away at the fall of the flag and another retired immediately at the paddock. Once again there





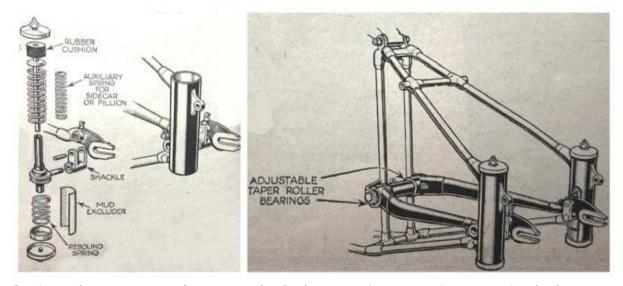


"Manufacturer-riders at Donington—L-R: Mr George Denley, the Velocette sales manager, Mr Edward Turner, managing director of Triumphs, and Mr Jack Sangster, head of the Ariel, Triumph and New Imperial concerns." "Mr DS Heather, director of Sunbeam Motor Cycles, puts the new spring-frame Sunbeam on to its stand. On the right Is his daughter with her AJS." "Mr VT Mountford, Mr RA Wilson-Jones, Mr CF Bladon, all of the Enfield Cycle Company, and Mr Gilbert Smith, director of Norton Motors, and President of the Manufacturers' Union."

were only two finishers, but the speeds were good considering the age of the machines. The machines were dated 1920 and 1926 respectively. Then followed another four-lap clubman's race, divided into two heats. The event was dominated by a rider in the second heat, E Pelham, on a twin Triumph, and the winner of Heat 1, T Wortley, also on a Triumph, took second place in the final results. Finally, there was the eight-lap 500cc race for experts. In the first heat Wilkinson again did battle with Murdoch, but he was frustrated by a machine which seemed too slow and also by HB Myers (Norton). The final heat saw Daniell supreme. He tore round the course in a superb manner, safe and steady as a rock and a true delight to watch. John Lockett did his best to catch the leader, but was out-classed, though he, too, rode beautifully. ST Barnett on another Norton was also excellent and warded off a challenge from Maurice Cann on a Moto Guzzi. This was racing at its very best and a fitting climax to a really enjoyable afternoon. Daniell's time [20min 12 sec/74.26mph] is a record for eight laps."



"This new 600cc spring-frame Sunbeam appeared at Donington last week. Three models of this type—350, 500 and 600cc, each with the 'Standard' engine—will be announced shortly. A feature of the neat plunger springing is that in a matter of minutes the owner can fit additional springs and thus make the springing suitable for pillion work."



Sunbeam's rear suspension was an intriguing cross between plunger and swinging arm.

"AT MIDNIGHT LAST TUESDAY week I started out for Manchester on my autocycle, and reached there at 10am Wednesday. I then went on to Huddersfield, where I spent the rest of the day. I began my return journey on the Thursday morning at 11.30, arriving in London at 10.30pm. As I am employed as a barman I have long hours and get little fresh air. Thanks to my wonderful machine I have enjoyed two very invigorating days at a very low cost. The other day I went to a garage to park the 'auto' and asked how much for a couple of hours. The garage man replied sarcastically, 'You may have a seven-year lease for sixpence for that.'" Perhaps the laugh is on me, should my garage friend read the

above.

P O'Brien, London, N1."

"AS YOUR CORRESPONDENTS 'Bear and Louie' state, there is still a tendency among some riders to regard 150s purely as toys—at least as not being suitable for serious touring. However, this view is certainly not shared by those who have had experience of these amazing little machines. I have owned an ohv 150 for the past two years, and during that time it has been used for general hack work and long-distance tours in the summer, and much of the work has been two-up. The only replacements (apart from tyres) have been in connection with the rocker gear, and that is accounted for by the fact that the machine had done several thousand miles before I bought it. What 500 would give more reliable service?

RE, Sutton, Surrey."

"READERS WILL PROBABLY be interested to hear of an almost incredible incident which befell me a week ago. The machine, a 500cc ohv model of a not-so-modern vintage, suddenly refused at intervals to respond to the throttle and ultimately cut out completely. On a cursory examination, the valves appeared stuck and compression was nil. After turning over the engine a few times the valves were freed and compression was felt, but just as I considered things more or less OK, the engine seized solid, and no amount of tinkering would free her, with the humiliating result of a tow home. When the cylinder head was eventually removed the amazing sight of an uneven layer of rubber on the top of the piston and cylinder walls presented itself, the piston being at about half stroke. It took half an hour of juggling with petrol and brute strength to remove the pot from the piston, which were exceedingly well 'glued' together with rubber. The cause, on further investigation, proved to be a rubber band from an old inner tube which had become detached from the saddle peak and had entered the cylinder via the carburettor air-intake and the inlet valve. Fortunately, after a thorough cleaning, the machine is quite all right again. The cylinder walls and piston rings were not in any any damaged, although the piston was slightly scored.

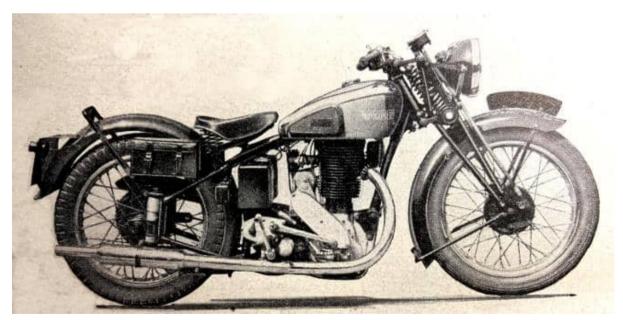
FMT, Newcastle-on-Tyne."

"AFTER WATCHING A NUMBER of London Moto-ball League games I can echo Mr SJ Smith's opinion that 'a fast, clean game of motoball between two good teams takes a great deal of beating as a spectacle'. I think there would be a real boom in the sport if more people realised what an enthralling and vigorous sport motoball is, both to players and spectators. There are few finer sporting spectacles, in my opinion, than watching a. first-class forward trundling the ball down the field flat-out, clearing adversaries by inches, and then the final shot! But like most things in this world, there's a snag. That is, that there are not enough first-class men to go round, so that too seldom one sees a real ding-dong battle between two more or less equally matched teams. But still, when

one does see a pretty level match, it's magnificent! **Spectator,** London, SW2."

Road Tests of The 500 c.c. Montgomery "Greyhound"

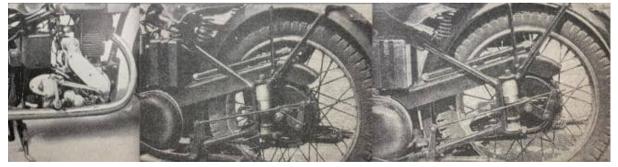
"THE NAME OF MONTGOMERY has long been associated with first-class steering, but it is certain that no Montgomery has ever had such excellent steering and perfect manners as the latest 500cc Greyhound with rear springing. The spring frame is of the well-known plunger type, and a first-class combination of front and rear springing has been obtained. The Montgomery spring frame smoothed out all roads—bumps, potholes, tramlines or stone setts could all be ridden over in absolute comfort. On one road which, owing to the appalling surface, normally cannot be traversed at more than 20mph with a rigid-frame machine the Montgomery was taken over at 30mph and the rider never left the saddle. As a further test the machine was ridden hands off over this same stretch at 20mph and the Greyhound never deviated from the straight path. The springing is soft, but the softness caused absolutely no roll at high speeds and the frame only bottomed on exceptionally bad bumps when travelling fast—it never bottomed in normal use on the road. No praise can be too high for the steering and handling of the machine. The steering was excellent at all speeds and there was never a trace of waver even when crossing deep-set tramlines at low speeds. On the open road it was delightful, for it was positive enough to allow the rider to



"This broadside view shows the clean, neat lines of the Montgomery Greyhound."

place the machine almost to an inch even on rough, twisty roads. Cornering with the Greyhound called for no effort, for the rider merely had to cant the machine over and it would swing round bends in a long, smooth sweep. Only one criticism can be applied to the cycle parts of the Greyhound and that is that the leverage on the front brake was poor. With the type of lever used there is not a straight pull on the operating cable and

the brake could not be pulled on hard. As a result, the braking of the machine was not all it could have been, even though the rear brake was powerful and smooth. The riding position and general layout of the controls are excellent. The relation of saddle, footrests and handlebars is such that the rider always feels in complete command. The saddle comes a little close to the rear mudguard, while the kick-starter is in rather close proximity to the off-side footrest. All the controls are conveniently placed and the brake pedal has an adjustable stop. The gear lever and gear change are probably as near ideal as it is possible to get. The movement of the lever is short and it is so well placed that the rider could change up or down without removing his foot from the footrest. Changes could be made at almost any engine speed, and the intermediate gears were free from whine. The clutch was well up to the standard of the gear box; it was sweet, light and free from drag. On the performance side the machine showed up just as well. The new JAP engine is used in which the push-rods are carried in the cylinder and head castings, and the engine tested combined many desirable features. It was fairly easy to start. When warm the tickover and slow running were exceptionally good. With the ignition retarded the engine would tick over like a gas-engine, and when the machine was being ridden in traffic the engine never missed a beat. Combined with this excellent slow running was great capacity for pulling. Even such steep hills as Pebblecoombe, in Surrey, with its gradient of 1 in 5½, were climbed easily in top gear. As an experiment the Montgomery was restarted at the foot of the hill, and even then it climbed the whole distance in top gear, breasting the summit at about 30mph. Thus for all normal purposes the 'Greyhound' is a genuine top-gear mount. In traffic the machine could be throttled down to 11mph in top gear with the ignition retarded and could be accelerated away from this speed. Speeds as low as 15mph were frequently used in normal riding in top gear, and the only protest from the engine was a slight pink if the ignition was left fully advanced in these circumstances. Naturally, this characteristic is reflected in the performance figures and



L-R: "An easily operated central stand lifts the back wheel clear of the ground. The new 500cc JAP engine has the valve gear totally enclosed within the cylinder and head castings." "The spring frame is straightforward in design and unobtrusive. Rebound shocks are taken by a deep rubber cushion situated below the body of the male plunger." "The springing is of the 'soft' type and with a rider of average weight normally seated the springs are appreciably compressed."

the acceleration from 15 to 30mph in both top (4.5 to 1) and third (6 to 1) gears was above average. The Montgomery also had a very good turn of speed, and on the open road the comfort provided by the spring frame coupled with the superb steering tempted the rider to cruise in the sixties whenever conditions permitted. Treatment of this sort did not appear to stress the engine in the least, and on several occasions long bursts of 70-75mph were indulged in. The maximum speed attained in the timed run was 78.8mph, and the mean speed of the four runs over the quarter-mile was 76.6mph. In third the maximum speed was 64mph; thus a very useful performance was available in this gear. High-speed acceleration was one of the Montgomery's many good points, and from a standing start 68mph was reached in a quarter of a mile. It might be thought that with all these good features the engine would be harsh or rough, but the JAP engine tested was pleasantly free from vibration, while mechanical noise was almost entirely absent at all speeds. The exhaust note, too, was pleasantly subdued and unobtrusive under all conditions. This, then, is the 500cc Greyhound de Luxe Montgomery. It is a machine against which even the most discerning critic would find it hard to level criticism. It is a happy combination of superb steering, re-markable springing and an engine that combines amazing pulling powers with a very good performance."



"One of the Ministry of Transport Divisional Accidents Officers whose task it is to investigate accidents and road conditions. The machine is a Gold Star BSA and no doubt like his last, an Empire Star, is destined to do well over 100,000 miles." (Right) "Cast-aluminium plates front and rear reveal the official status of the machine's owner."

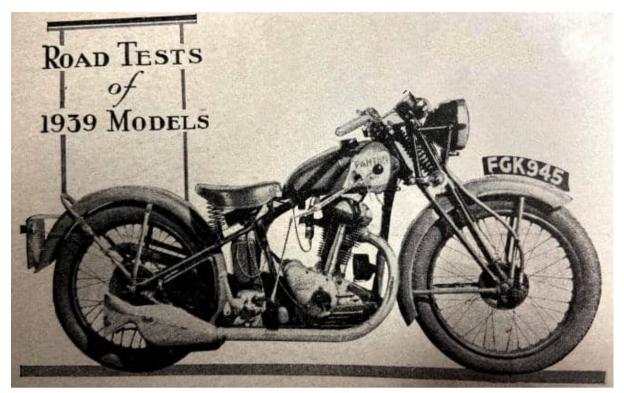
"I WAS EATING MY MIDDAY lunch in a West Country tearooms yesterday when I heard an awful noise, and a motor cyclist sped past the window chased by a fat and obviously middle-aged wire-haired terrier. Both were doing about thirty, as near as I could guess, and the silly dog was barking continuously while lying flat down to it. Anon I saw the discomfited terrier return at a slow crawl, coughing and looking very sorry for himself. Suddenly his wind failed completely, and he sat down on the kerb, coughed some more very sadly indeed, and then brought up everything he had eaten for dinner. Now what on earth had been passing through his pathetic doggy mind? I suppose a keen sense of duty to his master caused him to regard the passage of this noisy machine in front of his master's sacred doorstep as an outrage which could only be wiped out in bites. I suppose centuries of inbred experience caused him to imagine that any foe could be terrified and semi-paralysed by fierce barkings. I wonder whether memory of constricted lungs and a lost dinner will mollify his rage next time a motor cyclist passes his home."—Ixion.

"GERMANY HAS NOW IMPOSED a speed limit—62mph on autobahnen and 37mph in built-up areas. A lower limit has been imposed for lorries and heavy vehicles. This is 43mph on autobahnen and 25mph in built-up areas."

"SOME YEARS AGO Ariels ran a remarkably successful seaside holiday camp down Bognor way. The cost per week or fortnight was reasonable, and it was one of the matiest, cheeriest and best organised shows possible to imagine. I am surprised that others have not adopted a similar scheme. It seems to me that there is an opening for holiday camps run by motor cyclists for motor cyclists."

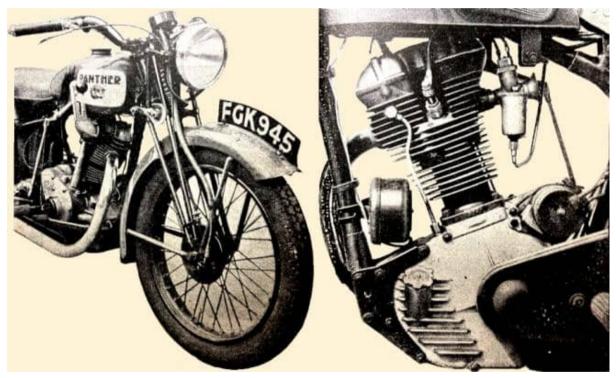
"MANY READERS KNOW only too well that there are lots of garages that do not handle motor cycle repairs. Some have not the knowledge and facilities, while others prefer to cater for cars only. The R.A.C. now has a special Motor Cycle Repairer' appointment and has been pressing ahead with the scheme to such good purpose that there are already nearly 1,300 motor cycle repairers holding the RAC appointment or official RAC repairers who will undertake motor cycle work. Those who specialise in motor cycle work have a sign bearing the words RAC Motor Cycle Repairer.' I mention the fact because motor cyclists in their own interests should support those repairers who support the game—do so by buying their petrol and oil from them as well as using them for repairs. This is important if motor cyclists are to continue to have nation-wide service."

## 248 c.c. MODEL 20 RED PANTHER



"The Model 20 Red Panther is a sound and straightforward 250 with an extremely good all-round performance."

"ALTHOUGH EASILY THE CHEAPEST 250cc four-stroke. motor cycle on the market, the 248cc Red Panther is a machine with a first-class specification. There is nothing 'fancy' about the machine, and nothing skimped: it is just a thoroughly sound sports 250 capable of taking two anywhere on main roads. The performance is excellent. At any speed from 18 to 35mph the machine woffles along effortlessly. If high speeds are wanted it will cruise, apparently indefinitely, with the speedometer needle roaming between the 50 and 55 marks, while the timed maximum speed was approximately a mile a minute. A compact type of riding position is provided. The rider sits 'in' rather than 'on' the machine. While it is not a large motor cycle it is of ample size to accommodate a 5ft 11in rider, and affords an almost unexpected degree of comfort. A Dunlop waterproof saddle is fitted, together with 3.00-19 tyres. The handlebars are of excellent shape and provided with a Bowden twist-grip throttle control, comfortable type clutch and front brake controls, and simple but effective pressed air and ignition levers. All the controls are well placed, the pedal operating the rear brake exceptionally so, for it is in a position in which the right toes can be poised comfortably over it for traffic work. Starting was very easy and required no knack, irrespective of whether the engine was hot or cold, and the engine would immediately settle down to a satisfactory tick-over. There was never any need to be constantly opening and closing the throttle in order to keep the engine going when the machine was stationary in a traffic block. A three-speed Burman gear box, with a hand control alongside the tank, is fitted. This afforded a simple, easy change both in an upward direction and down-ward from top to second gear and second to bottom. The gate in which the control operates is of straightforward type, so there is no need for the rider, even a novice, to glance down as he changes gear. The clutch was light and smooth in operation. The steering proved very good indeed, both on the straight and around corners and bends. In every way the Red Panther is a handy machine. It can be ridden feet-up at a walking pace, while in the garage its light weight makes its particularly easy to manoeuvre. If there is any possible point to be raised in this connection it is that use of the stand, like the majority of those of the central type, calls for a certain amount of effort. Mechanically the engine was quiet. The exhaust, too, was very satisfactory at low speeds, though on the noisy side at high speeds and when the machine was being accelerated hard. Owing to the lightness of the machine and the excellent power output of the engine the acceleration is good. From 15 to 30mph in second gear (9.5 to 1) took only 5 seconds, while from a standing start the machine, with use of the gears, attained a speed of 56mph by the end of a measured 440 yards. Both brakes are excellent. They are light to operate, smooth in action, and fully up to the lively nature of the machine. Another good point is that although much rain was

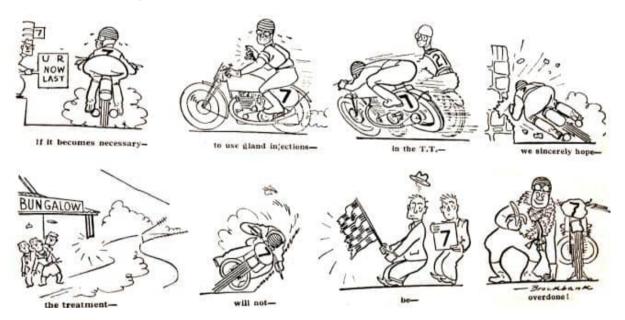


"All the controls are well placed. The gear gate is of a simple type that makes it unnecessary for the rider to look down when changing gear." (Right) "Full enclosure of the valve gear is a feature of the lively engine. Oil is carried in a crankcase sump."

encountered during the test, neither brake at any time showed a reduction in efficiency. Second gear provided a comfortable speed of 30mph, while in top the machine, as already stated, would cruise happily at speeds as high as 50 and even 55mph. Throughout the engine's speed range there was no appreciable vibration. As a test the machine was stopped and re-started, two-up, on a gradient of 1 in 4. Thus there need be no fear that the machine cannot climb any hill normally encountered by a tourist, and

do so even with a pillion passenger. While there is this very useful sports performance, the engine also has excellent slogging powers. The usual type of main-road hill is surmounted with ease in top gear. It is not necessary, therefore, for the rider to be continually changing gear. Ignition and lighting are provided by a Miller coil and dynamo set. This is in every way a full-sized set, and the light provided by the head lamp, even by modern standards, must be termed exceptional. In addition to an unusually powerful beam there was excellent side-illumination. The set, incidentally, provides a dipped beam as well as the main beam, and, for parking purposes and town work, a pilot bulb. To sum up, the Model 20 Red Panther is a really lively 250 with excellent road-manners, a first-class specification, and a price which, in view of the nature of the machine, is so low as to be little short of amazing."

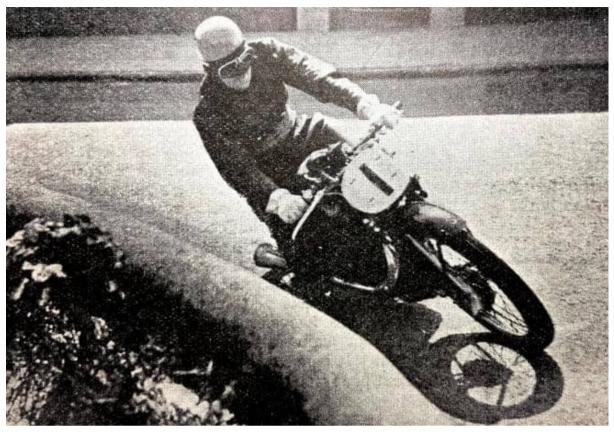
"A SPANISH-SPEAKING Englishman is now riding through Spain picking up the threads of the Ariel motor cycle business now that the Civil War is over."



"THE EDITOR AND STAFF thank the various readers in Australia and New Zealand who so kindly took advantage of the new cable facilities to 'wire' good wishes."

"FOR THE FIRST TIME for many years the Leinster '200' road race, now styled the Grand Prix of Eire, was won by one of the limit men. A young Belfast rider, Hugh Montgomery, taking part in his first road race, rode a 348cc Red Hunter Ariel to victory at the very creditable speed of 63.48mph. He rode under the name of 'R Hunter', and his victory came as a surprise to nearly everyone, for several of the English competitors had gone so fast in practising that the chances of the long-markers were not regarded very highly. Second, 1½min behind, was A Clendinning, of Liverpool, who averaged 65.70mph on an eight-year-old 250cc TT Rudge. Another Belfast rider, TL Irwin (249cc Excelsior) was third. EE Briggs, of Ilkley, who had been greatly fancied to win, finished 14sec behind Irwin. But for taking nearly two minutes over his pit stop he would have been third, or possibly second. For most people, the chief interest lay in the performance of Stanley

Woods, who was racing again for the first time since his crash in the Belgian Grand Prix last June. Last year he rode a KTT Velocette, and not an actual TT model, so that his best lap of almost 79mph compared favourably with the record of 80.38mph made by the late Jimmy Guthrie on a 348cc Norton in 1937. This year Woods had a pukka TT job. Despite a poor start, he covered his standing lap at 78.6mph, and followed this up with another at 78.9. He found. however, that with 36 riders on a six-mile lap, conditions were not altogether favourable for ultra-high speeds. The hot sun had caused the tar to melt in places, and several riders came off on the early laps for this reason, including such experienced men as TG Byrne (349cc Rudge), E Lyons (Triumph Twin) and TB Fortune (Rudge), as well as the Leeds rider, J Brett (348cc Norton), who had been fancied to do well in the handicap. When the field thinned out somewhat Woods made a real attempt on the lap record. He completed his 22nd lap at 79.78mph, and then, winding things up properly, put in a sparklingly brilliant lap at the amazing speed of 84.52mph—over 4mph better than Guthrie's old record. It also beat comfortably the fastest lap ever accomplished on the circuit—83.53mph put by APR Rolt in his supercharged 1,500cc ERA car last year. Quite evidently Stanley has lost none of his form, which is a good omen for British chances in the Island next month. The next fastest rider in the race was ER Evans, riding a new 496cc Gold Star BSA. Despite having to change a plug, he was well in the picture, and did one lap at 76.07mph. He seemed to have the 500cc class in his pocket, for HB Myers' new spring-frame Norton was not going so well as his old model last year. Then Woods, in the process of making his record, came up with Evans, and the BSA rider made a valiant attempt to hold on to the flying Irishman. He knocked 17 seconds off his best previous lap and got round at 80.99mph, just two seconds better than Guthrie's record. It was a stout effort, but too much for his machine, which packed up a couple of laps later. Incidentally, not one of the nine 500cc machines finished. Woods, of course, won the 350cc class...Woods' chief opposition in the class had been expected from Maurice Cann, whose springframe Norton had been fitted with Girling brakes, but the little Leicester rider...never really got going, and ultimately met trouble on his last lap, having to push to the finish, which he reached outside the time limit. This cost the Wakefield and District MSC the club team prize."

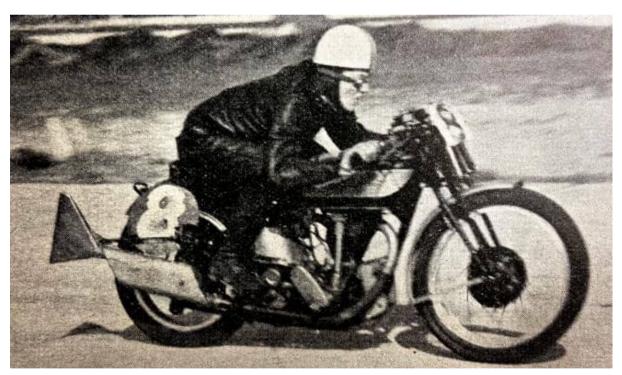


"The one and only Stanley: A close-up of Stanley Woods (348cc Velocette) which reveals his beautifully facile manner of cornering."

"A PETITION TO THE CHANCELLOR. The BMCA in collaboration with members of the trade and industry appeal against proposed taxation increase...a petition to the Chancellor of the Exchequer...takes the form of a reasoned statement urging him to refrain from imposing increased taxation upon motor cycles. All motor cyclists...are asked to sign the petition and forward it without delay to...the BMCA: 'We, the undersigned motor cyclists, humbly petition the Chancellor of the Exchequer to remove from the Finance Bill the clause enforcing increased taxation on motor cycles. Our plea is based on the great hardship the increase would impose on a class of the community which has already had to shoulder many burdens. We beg to remind you of the big increase in our insurance premiums earlier this year, of the 9d tax on every gallon of petrol we use, the tax upon lubricating oil, of the cost of taking the driving test and of driving and road licences. Already the burdens, we suggest, are out of all proportion to the cost of our machines; they are such that our numbers are decreasing. Were it not that with the majority of us our motor cycles, far from being a luxury, are a necessity the numbers might be lower still. Of the total of nearly half a million motor cyclists it is estimated that approximately 400,000 use their machines for the purpose of getting to and from their work. May we also remind you that in the last war the ranks of motor cyclists provided thousands of pilots for the RFC and RAF; thousands of men for the Motor Machine Gun Corps and later the Tank Corps. There was the call for men with technical knowledge then; there is a very similar call to-day, yet whereas on the

Continent nations have done everything in their power to foster motor cycling, realising its value as training and in developing physical fitness, and have even eliminated taxes on motor cycles in their entirety, we in this country find ourselves faced with the prospect of a still greater burden. We are anxious to play our part. Tens of thousands of us are giving proof of this for we are already in the armed forces. To many of us the proposed additional tax would be in the nature of the last straw.'"

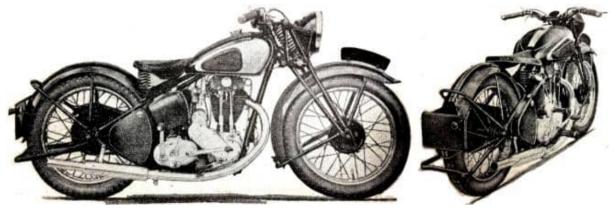
"GOOD RACING AND GLORIOUS weather were features of the BMCRC's meeting last Saturday. All races were run over the Campbell Road Circuit...Before racing started Sir. Algernon Guinness unveiled a tablet on the wall of the clubhouse to the memory of the late Eric Fernihough. The Senior Road Championship was a sad race...Out of an entry of eight only five came to the line. MWK Tisdall was first away on his supercharged BMW, but NB Pope (490cc Norton) and G Newman (348cc Velocette).passed him on the first turn. Pope led the field on to the Banking, but then oiled a plug. For two laps Newman on his 350 led the field, but PM Aitchison (490cc Norton) and R Harris (490cc Norton) slipped by on the next lap, and Tisdall rode into third place soon after. Later Newman turned into the pits, leaving only Aitchison, Harris and Tisdall really concerned in the race. These three kept going for the rest of the ten laps, all riding extremely well, but at half-distance Harris overtook Aitchison. and this order was maintained to the finish."



"Winning pace: a fine impression of Ron Harris (490cc Norton), first man home in the Senior Championship."

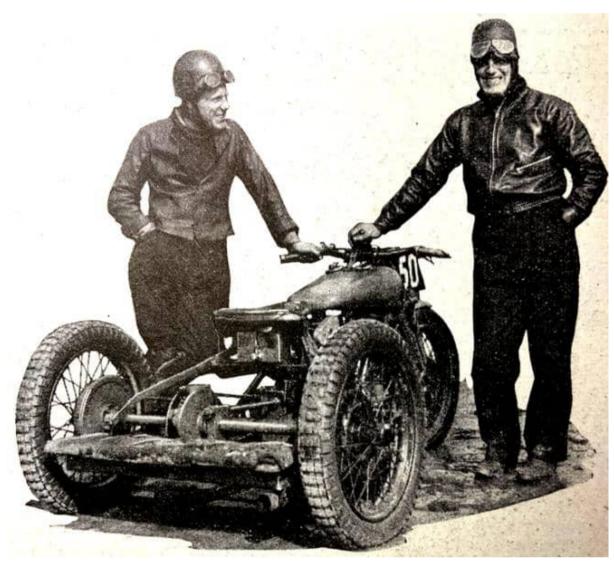
"AFTER A LAPSE of several months, Calthorpe motor cycles make a welcome return to the market. They will be produced in three capacities—250cc, 350cc and 500cc—and the only difference lies in the engine dimensions. The 350cc machine is typical of the range. The engine is of the ohv, single-port type, and has a bore and stroke of 69x93mm

(347cc). The dimensions of the other two engines are respectively 62.5x80mm and 82.5x93mm. An interesting feature of the dry-sump lubrication system is that the two separate cams dip at each revolution into an oil-well in the timing box. The valve gear and push-rods. are fully enclosed and directly lubricated from the engine. Front and rear stands are fitted, the latter being of the spring-up type. Other items of the specification are: 6in mudguards with a centre rib and a wide gold line down the middle, and chromium-plated exhaust pipes—high- or low-level—with cylindrical silencers. The electrical equipment includes an 8in Miller head lamp with 36-watt bulb, a rear lamp fitted into the rear number plate, and a battery mounted below the saddle. The prices are: 250cc, £54 10s; 350cc, £57 10s; and 500cc, £59 10s. At a later date special engines for com-petition work will be available for the 350 and 500cc models. These units will not be simply tuned standard engines but of entirely different design. The extra charge for these engines will be £6 and £7 respectively."



"The new Caithorpes follow the old tradition of being really handsome machines. The three-gallon tank is finished in black, with gold panelling." (Right) "A three-quarter rear view which gives a good idea of the neat and practical design of the new models. A high-level exhaust system can be fitted if desired."

"IF MR TROUNSON'S latest request to our hard-pressed manufacturers, namely, for a three-cylinder motor cycle, is to be taken in any measure of seriousness, I should like to inform him that just after the war such a unit was definitely produced, and, I believe, with overhead valves. To the best of my recollection it was known as the Redrup. I might also remind Mr Trounson that Scott's produced a three-cylinder two-stroke a short while back, though I do not know with what success. It is likely that, as in the case of the P and M Panthette of 1927, the transverse AJS of 1930, the Austin 7-engined Brough Superior of a year or two later, and more recently the Douglas Endeavour transverse-twin, brilliant design and expensive production have had to go owing to, as much as anything, lack of support. No one needs to study economy more than I, and that fact alone bars me from the chance to run a sample of my own ideal, but as a believer in 'practise what you preach' I stick to a monkey-glanded 350cc Duggie, which gives me an easy glide with its fat, low-pressure tyres and its most logical of all motor-cycle engine types. 'Twinner Flat', Dunstable."



"Three-wheeled racer—This novel big-twin racing three-wheeler, contrived by J Blease, has been achieving success at Northern sand-racing meetings. Blease is seen on the right."

"THE ROAD-RACING SEASON in Northern Ireland opened last week-end with the North-West Grand Prix 200 miles road race. The event attracted the usual crowds.

Unfortunately, in the opening lap, Norman Wainwright, a member of the Southport Motor Racing Club, had a fatal crash at the Plantation, Portstewart. The race itself was disappointing because of the large number of retirements. Forty-four riders started, but only 11 finished. Lap records were also conspicuous by their absence. Speeds over the whole distance, however, were up on last year (when adverse conditions prevailed), but were below the previous best. An outstanding entry was that of AR Foster, who was riding a supercharged four-cylinder AJS which was making its first appearance in a race. Foster, however, was unable to get the machine to start when the other riders in the 500cc class were under way, and he was only a short distance from the starting point when the 250cc men set out two minutes later. Shortly afterwards Foster did get going, and then he made up for lost time. In fact, he led the class before half distance, but

trouble later dogged him and he retired after a notable performance which greatly thrilled the spectators. Thirteen competitors—an unlucky number to the superstitious—started in the 500cc class, but only one, Ernest Lyons (Triumph), an Eire rider, covered the full distance. Stanley Woods (Velocette) was No 1, and he was also the first rider to



"The start of the 250cc race. The winner, D Parkinson (No 35) is seen on the left, riding an Excelsior. No 37, Chris Tattersall (CTS), was second, and A Glendinning (No 44), on an Excelsior, third. The winner's speed was 67.4mph."

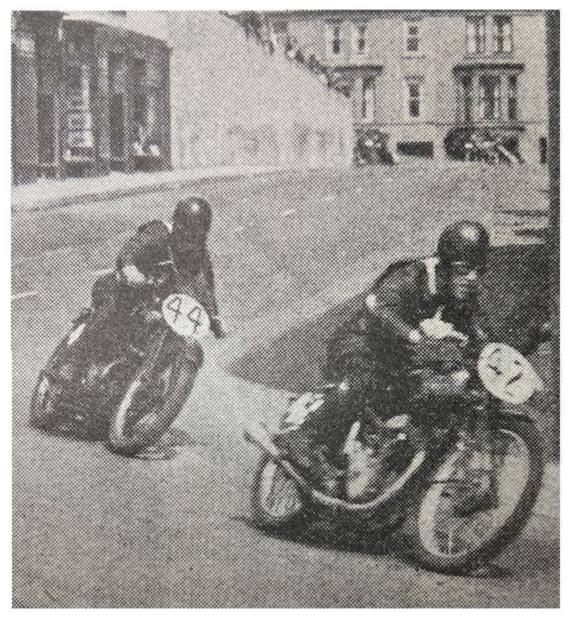
complete one lap. His time on this circuit, from a standing start, was 8min 20sec. He was, however, faster on the next lap, his 8min lsec (82.88mph) circuit being the fastest of the day, although 8sec slower than the record made by the late J Guthrie (Norton) in 1936. Unfortunately, Woods' engine seized near Portrush afterwards, and he retired. Ernest Lyons (Triumph), lying second, achieved an opening lap of 8min 43sec, and then 8min 45sec, while JW Beevers (Norton) took 8min 58sec and 8min 49sec on laps 1 and 2. Foster, by reason of his delay in getting away, did not pass through until 11min 30sec had elapsed, but he completed his second lap in 8min 16sec, which showed that he was getting into his stride. With Woods out of the race on the third lap the leading positions were occupied by Lyons (Triumph), Beevers (Norton) and ECE Briggs (Norton), of Ilkley. This order was maintained for the next two laps. Foster went ahead, and at the end of the sixth lap he replaced Briggs in third place, and on Lap 8 he was in the lead. Positions at the end of nine laps, half-distance, were: 1, AR Foster (AJS); 2, JW Beevers (Norton); 3, E Lyons (Triumph); 4, A Brown (Triumph). Retirements and crashes had reduced the field to five at this stage; the other rider still in the running was Brockerton (Excelsior), the veteran of the race. Later, Foster



"A Foster, with the four-cylinder AJS, and Stanley Woods (Velocette), who made the fastest lap in the 500cc race."

pulled into the pits, and then on lap 13 he retired. On the closing laps Beevers also retired, and Lyons finished with an average of 74.95mph, nearly 4mph faster than last year, but over 7mph below the record. Brockerton was flagged off the course with a lap to do when the time limit expired, and there was, therefore, only the one finisher. In the 350cc class 15 riders started, but no fewer than four failed to complete a lap. Another rider covered two laps, two others four, another man five laps, and a ninth competitor six laps. Two other retirements reduced the field to four, all of whom finished. AJ Bell (Velocette), of Belfast, on the completion of the first lap, was neck-and-neck with Wolter Rusk, also on a Velocette. Their lap time was 10min 5sec. Bell had plug trouble, however, and later retired. JE Little (Velocette), who was lying third, had a good scrap with Rusk until the latter crashed on the 15th lap, and retired with facial scratches. Rusk was the fastest rider, except on the ninth lap, when Little was first through with an advantage of 15sec. On the next lap Rusk was in the lead by 30sec, but on the 13th lap only 12sec separated them. Little finally went into the lead on the 14th lap, and he crossed the line over 16min before the next rider to finish—LD Gilbert (Norton). Little's average was 75.4mph compared with 69.46mph last year and the record of 76.73mph. Rusk and Little shared the honour of making the fastest lap—8min 33sec (77.71mph). The highest percentage of finishers was in the 250cc class; six out of the 16 who started

completed the course. Chris Tattersall (CTS) led on the first lap, and was also in front at the end of the seventh lap. During the remainder of the race D Parkinson (Excelsior) was in the lead. A Glendinning (Excelsior) lapped consistently in third place, but there was a wide margin between the next three finishers, Spills and mechanical troubles accounted for the other 10 riders, who gave up at various stages of the race. Parkinson made the fastest lap in 9min 22sec. (70.93mph), which was 5sec short of the record. His average of 67.40mph for the total distance, was nearly. 3mph faster than last year, but slightly slower than the record."



M'Adam (Excelsior) leads A Glendinning (Excelsior) at Henry's Corner."

"AN EXCELLENT ENTRY of 41 was received for the New Zealand GP held at Cust, Canterbury, over a 6.1-mile circuit. An unusual feature of the final results was the sharing of first and second places by two brothers, W Alexander (499cc Rudge) and R Alexander (500cc Triumph Twin). M Wear (348cc Velocette) was third. The next two

"G

places were filled by International Nortons, ridden by T Torrens and P Clarkson. The winner's average speed over the tricky circuit was 53.92mph; the Chevrolet Gold Helmet for the fastest lap went to P Clarkson, who averaged 71mph. The sealed handicap run in conjunction with the main event provided a win for T Torrens (490cc Norton), with J Oed (Norton) second and V Laws (Triumph) third. Prominent during the first half of the race was L Perry, who, mounted on Walter Rusk's 1934 Senior TT Velocette, quickly went to the front after the impressive massed start. He was followed at a respectful distance successively by B Rosson (Norton), M King (Rudge), A Currie (Norton), R and W Alexander, M Wear (Velocette) and T Torrens (Norton) until the 17th lap, when punctures put him out of the race. After a short lead by Rosson, who later retired with engine trouble, the Alexander brothers took the leading places and fought out a hard finish. An amazing performance was recorded by V Laws, who, after blowing up his Tiger 100 in practice, commandeered his fiancée's 250cc side-valve Triumph and rode it into third place in the sealed handicap!"

"THE TOTAL NUMBER of motor cycles registered for the first time during March was 6,449."

"THE INCREASING POPULARITY of under-I50cc mounts is shown by the fact that new registrations in this class totalled 888, nearly twice the March, 1938, total. Sidecar outfits also showed a gain. The March, 1939, total was 939, compared with 800 in the previous March."

"HALF A MILE of Hendon Way and Watford Way and two sections of the Green Street Green road at Darenth (Kent) are to be restricted to the 30mph limit."

## ROAD TESTS OF 1939 Models



"IN CONCEIVING THE HEC Power Cycle the designers had in mind a bicycle with an engine—a machine that would have all the advantages of a pedal bicycle yet would require a minimum of pedalling. The object has been achieved in a commendable way, for the machine is light in weight and extremely simple to drive, while the engine, which is neatly housed between the tubes of the short-wheelbase frame, can readily be detached to make the machine a sturdy example of an almost normal bicycle. The pedal gear ratio is just right, and the pedals are so placed as to allow maximum power to be obtained with little effort. The riding position is natural and comfortable. For instance, a rider unused to cycling was able to pedal without fatigue at about 10mph on short journeys in town. Considerable interest attaches to the compact 80cc two-stroke engine and clutch unit. Its outstanding features are an easily detachable aluminiumalloy cylinder head and induction pipe, a cast-iron piston and a roller big-end bearing. The die-cast aluminium-alloy crank-case incorporates an oil-bath for the duplex chain, and the cork-insert clutch is also enclosed in the casting. A simple type of Amal carburettor is used and the flywheel magneto has coils for direct lighting. All the controls are on the handlebars with the exception of the carburettor choke rod, which is on the offside of the tank. The clutch lever is fitted with a ratchet trigger to enable the clutch to be held out of engagement when required. No compression release is provided, nor is one required, for on no occasion during the test was any difficulty experienced in overcoming compression when starting, and the throttle adjustment was such that the engine could be stopped by fully closing the handlebar control. To start the engine from cold it was necessary to flood the carburettor copiously and to employ the choke; then if the machine were pedalled up to about 8mph and the clutch engaged the engine responded immediately and settled down so quickly that the choke could be opened after about 50 yards had been covered. With a warm engine, starting was simply a matter of pedalling away and dropping the clutch with the throttle control

about a quarter open. The HEC has a fairly low engine gear ratio (14 to 1), and this combined with the light weight of the machine and an extremely 'peppy' engine, provides acceleration well above the average. Response to the throttle was immediate and a speed of 25mph was attained comparatively rapidly. Higher speeds are available if required; indeed, under favourable conditions the speedometer registered 35mph, which is remarkable for an 80cc power unit. In these circumstances, slight vibration was felt, and without doubt the engine was happiest at a speed of about 25mph. At the other end of the scale the engine pulled smoothly and well, and four-stroking seldom occurred. With careful throttle work the machine could be made to travel without transmission snatch at little more than average walking pace. In traffic stops the engine idled slowly and quietly. The silencer is most effective throughout the speed range; an interesting point is that the silencer can be dismantled for cleaning merely by removing one nut.

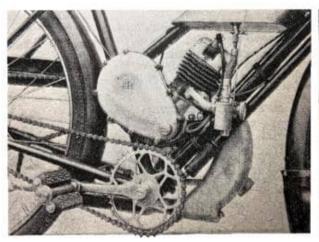


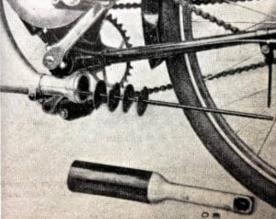
The HEC has a short-wheelbase frame and the 80cc two-stroke unit is neatly housed between the down tubes."

Only light pressure was required to operate the clutch, which freed readily and took up the drive so smoothly and progressively that the rider rarely used the pedals when getting away from a standstill. The test included Anerley Hill, near the Crystal Palace, which has a gradient of 1 in 8 at the steepest part. Without the rider employing rushing tactics the HEC topped the 1 in 8 section at 15mph and proceeded to gain speed thereafter. In an endeavour to find a hill that would really test the little machine, Pebblecombe Hill, near Dorking, Surrey, was attempted. The average gradient of this hill over about half a mile is 1 in 8, with a section of 1 in 5½; at the latter point the pedals had to be used, but not by any means laboriously. On wet roads the HEC handled as

safely as a pedal cycle and never showed any signs of instability even when the brakes were applied hard. In traffic the short wheelbase and light weight made the machine easy to manoeuvre and control. Both brakes are of the internal-expanding type, and although they were not super powerful, they were found adequate for normal riding. In a crash stop from 20mph on a dry concrete road an average figure of 21 feet was obtained. Petroil lubrication is employed in the ratio of 20 to 1 petrol to oil and a small oil measure is incorporated in the tank filler-cap. The tank holds 9 pints, and it was found difficult to judge when the level was sufficiently low to allow a fill-up of a gallon of petrol with the appropriate amount of oil. Remarkable economy is a feature of the HEC. A carefully measured quart of petroil was sufficient for 38 miles comprising traffic work and an open-road trip of 14 miles. No effort was made to obtain a 'freak' consumption, and the figure of 152mpg could be obtained by the average rider. Throughout the test the engine unit remained free from oil leaks and no adjustments were necessary. The HEC Power Cycle is equipped as standard with direct lighting (including a dry battery for parking), tools, tool bag, carrier, pump, licence-holder and 26×1¾in tyres. The price is £17 17s. A Smith's speedometer registering up to 40mph costs an extra 19s 6d.\* The makers are HEC Power Cycles, 43-44, Thorp Street, Birmingham, 5.

\* Not a legal requirement on under 100 machines.



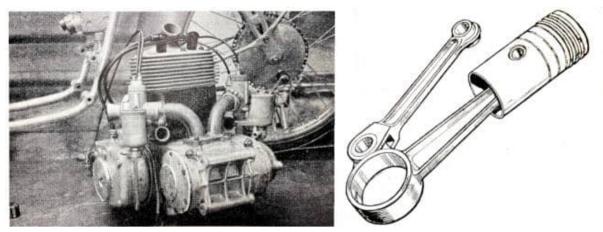


"A close-up of the power unit, which reveals its clean lines and general accessibility. The flywheel magneto has coils for direct lighting." (Right) "A feature of the silencer is that it can be completely dismantled merely by removing one nut and washer."

"AT WEMBLEY I SAW a speedway frame built entirely of light-gauge aircraft steel tubing with the exception of the lugs, which are the standard Rudge speedway type. With this frame a saving in weight of approximately 15lb is gained over the standard Rudge speedway frame. Engine plates of hiduminium, which is an aluminium alloy, effect a further saving in weight of 4lb, while yet another pound is saved by having handle-bars of the same metal. I also saw a cylinder barrel consisting of a thick steel liner with shrunk-on aluminium fins; net saving in weight over the standard barrel: 3lb. Speedway front forks of special aircraft tubing effect a further substantial reduction in weight, for

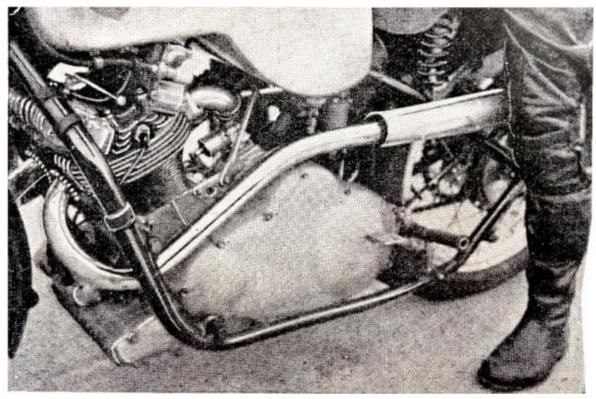
two reasons. The first has already been explained in relation to frames—lighter gauge tubing. The second is that, owing, to the greater toughness of the metal, it has been found practicable to replace the standard solid fork centre pieces with tubular pieces. Thus, in addition to reducing considerably the weight of the fork as a whole, the unsprung weight is also appreciably decreased. Another by no means new weightsaving plan—Max Grosskreutz employed it years ago—is to have the rear-wheel sprocket bolted directly to the hub flange instead of being mounted on the more usual splined carrier. There are many other ways in which weight can be reduced; as for example, by using light-alloy wheel rims, such as are employed in the TT. But there is a definite limit to the extent to which this weight-saving can usefully be applied. The standard Rudge-frame. Martin-JAP speedway machine, which is almost universally used to-day, weighs 240lb. This weight can, with advantage, be reduced to about 205lb, or even 200lb. Below this figure, however, the disadvantages begin rapidly to outweigh the advantages. Apart from acceleration considerations, a lighter-than-standard speedway machine is, in most cases, a distinct advantage when it comes to jockeying and fighting the machine on the bends. If, however, a machine is lightened too much in relation to its power, there is a loss of traction and, more serious still, a considerably reduced measure of control over the front wheel. A case in point was the appearance at a recent New Cross meeting of the West Ham rider, Eric Chitty, on a machine which turned the scales at well under 200lb. Coming down the straight, Eric encountered a bump in the track, turned a complete somersault in the air on his machine, and crashed heavily."

"THE RECENT RACES at Eilenriede and Hamburg in Germany have thrown some light on the probable strength of the German opposition in the Isle of Man this year. The three leading German factories, BMW, Auto-Union and NSU, were all officially represented, and it is almost certain that the Hamburg races were used as a testing ground for the TT machines. Important changes have been made to the 350cc DKW during the winter. It was freely admitted that in its original form the 350cc machine was in the experimental stage, but the latest edition looks much more businesslike. The engine is of the unique DKW double-piston type; it is a vertical-twin with four pistons, the rear piston in each case acting as a scavenger. The main alterations concern the induction side, for instead of using the piston-type compressor which has been a feature of all the supercharged DKWs to date, a rotary blower is fitted. This is mounted low down in front of the engine and is driven from the engine mainshaft. Two Amal carburettors supply the mixture, and these are mounted at each side of the engine on long carved induction pipes. Watercooling is, of course, employed, and the engine is built in unit with a four-speed gear box. Only minor alterations have been made to the frame, which retains the DKW springing and the massive front brake which extends right across the hub. There are three official DKW en-tries in the Junior



"This view of the 350cc DKW engine shows the supercharger mounting and the position of the twin carburettors." (Right) "The articulated connecting rod of the supercharged DKW shown with the scavenging piston removed."

Race, but whether Kluge, Fleischmann and Wünsche will all ride the supercharged jobs has not yet been announced...The other three German.entries in the Junior Race, the NSUs, have yet to show they have the speed necessary for winning a modern TT. The machines which have been raced this year are very similar in layout to the model which made its first public appearance at the Grand Prix of Europe in Germany last year. The engine, gear box and supercharger are built in one unit with the supercharger mounted slightly above the gear box and between it and the engine. The two vertical cylinders, which have heavily finned cylinder heads, are inclined forward in the duplex frame. The valves are operated by double overhead cam-shafts and each camshaft is driven by a separate vertical shaft. A single carburettor is mounted above the 'blower' and twin pipes lead to the induction port of each cylinder. Contrary to modern racing



"The power unit of the 350cc NSU. The engine is a supercharged dohc vertical twin."

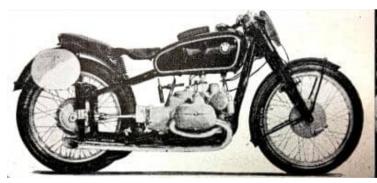
practice, the NSU has a rigid frame of simple duplex type with normal tubular forks. JH White will ride one of these machines in the Junior Race, with K Bodmer and 0 Ruhrschneck as team mates. The NSUs will also appear in the Senior Race, with W Herz riding in place of 'Crasher' White. There is no definite news of the alterations that have been made to the racing BMWs, but that they have more power and handle better is obvious from the fact that Meier handsomely smashed his own records in practice at both the Hamburg and Eilenriede meetings. Meier did not take part in the actual races, because he has only been released by Auto-Unions (for whom he is to drive cars) to compete in the TT. Alan Bruce and Tyrell Smith are comfortably ensconced near Kenilworth with all their Excelsior racing models. They are well ahead with their preparations and by the end of the week everything should be complete and ready for shipment to the Island. Tyrell is to ride 250, 350 and 500cc machines in their appropriate events, but Charlie Menders, who will also ride in all three races, will handle a 350 in the Senior event. These two riders will be

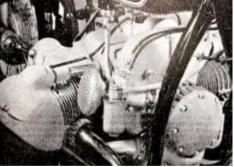




"Almost ready for practice! The 350cc Excelsior looks extremely businesslike, even though it lacks its megaphone exhaust and minor fittings." (Right) "The rear frame of the 500cc Excelsior has been modified to accommodate the rear springing, which is of the same type as on the smaller models."

supported by Sorensen in the smaller classes. All the Bruce-Smith models will be distinguished by black tanks. Basically, the 350 resembles the 250. The spring frame is identical, and in general appearance the two models are almost alike. The 350cc engine, however, has one or two internal differences...The cat is out of the bag. Although Nortons are officially abstaining from racing, the men upon whom they have relied in the past, Freddy Frith and Harold Daniell, will be piloting machines which were the favourites last year. The two riders mentioned were prepared to ride standard Norton racers of the Manx Grand Prix type, but it was considered a pity to leave the real models reposing beneath their dust covers in the factory. They are, therefore, to be given another slice of work and we shall have the familiar sight of these 'greyhounds of the road' streaking around the TT course in the hands of those who have made motor cycling history in the past. Frith and Daniell will have machines identical with those they rode last year. The only difference between the mounts of the two men is that Frith will use an elongated saddle—as he used in the 'Ulster'—and Daniell will have an ordinary saddle and a mudguard pad. "



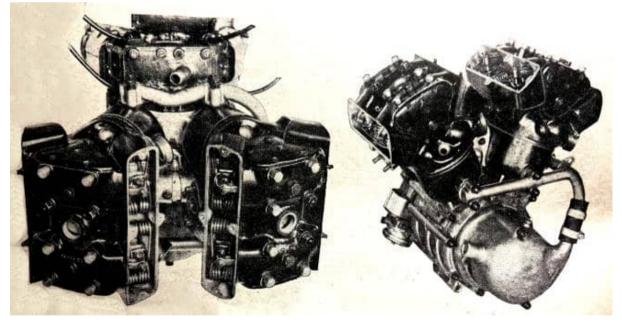


"The racing BMW has exceptionally clean lines. Few external alterations have been made to the supercharged flat-twin unit, but a new departure is the coupling of the brakes." (Right) "This front view of the BMW engine shows how neatly the supercharger has been built into the engine. Only short pipes are used between the 'blower' and the induction ports, and no abnormal finning is used on the cylinders."

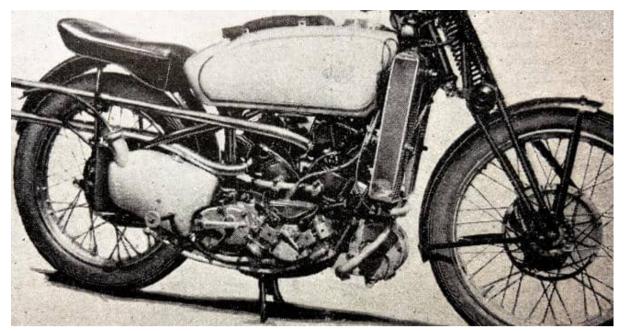


"TT Norton engines compared. On the left is the engine used by private owners and agents in the TT last year, and on the right is the 1939 edition. The chief external difference is the heavier finning on the cylinder head." (Right) "A rear view of the 498cc Norton engine showing the extremely rigid construction of the crankcase."

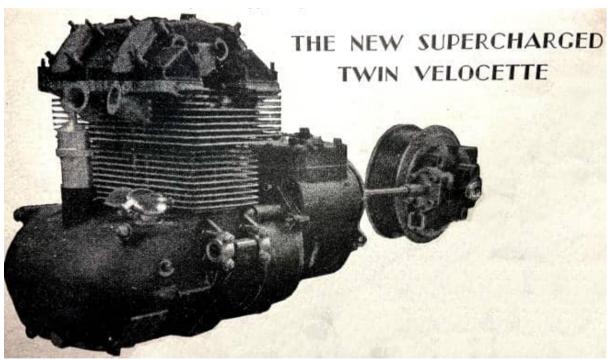
NORTON'S CONVENTIONAL TT contenders would not face the German challenge alone—AJS and Velo were waiting in the wings with blown multis...



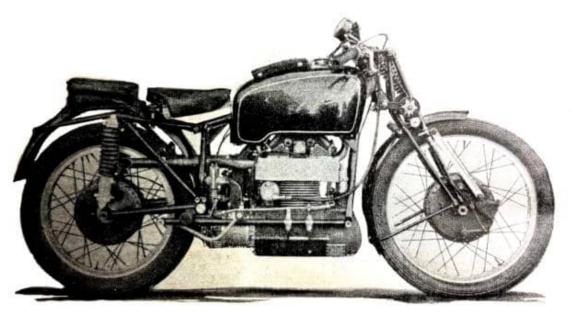
"Looking down on the rocker box of the AJS four-cylinder engine. The overlapping hairpin valve springs make a very neat assembly which is, of course, totally enclosed when the covers are fitted. (Right) The water-circulation impeller is bolted on the driving side of the crankcase."



"The latest edition of the AJS 'four' as it will be raced in the Senior. Several alterations have been made to the cooling system since the experimental job appeared. The radiator is considerably deeper and the outlet pipe can be seen running below the supercharger to the mainshaft-driven water impeller."

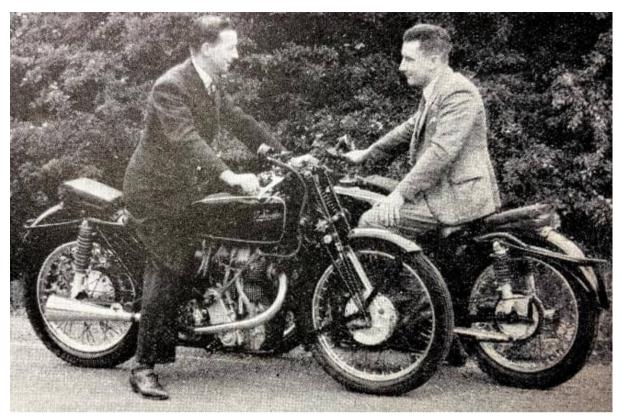


"This is a front view of the Velocette. The two inlet ports at the front connect with a branch pipe which sweeps over the top of the engine. In this view the oil filler and the breather can be seen. The drive shaft is connected to the rear hub."



"The supercharged twin Velocette in its Isle of Man form looks an extremely businesslike job. This view shows how the new unit fits neatly into its frame. The finned supercharger can be seen behind the engine with the carburettor mounted above it."

"OVER THE NEXT FEW DAYS there will undoubtedly be much discussion upon the future of the TT, and more particularly upon the 'Roadster Race' which the ACU is considering for next year. The regulations for this new-type race have been drafted and were to have been discussed between the ACU and the industry a few days ago. The meeting, however, had to be postponed and will, no doubt, be held immediately after the TT. While the draft regulations are confidential they have been examined by various interested parties. Basically they seem sound, but if the event is to prove of the maximum possible value they will probably have to be tightened up. This should not be difficult, though there are certain manufacturers who hold strongly to the view that it is impossible to ensure that the machines are all roadster-type models, and thus competing with each other on an entirely fair basis. We believe, however, that with a suitable panel of experts as examiners any such difficulty would be largely, if not entirely, overcome."



"All the way from 'the other side': here are F Mussett (left) and LV Perry. who have come from Australia and New Zealand respectively to ride Velocettes in the races. Perry, unfortunately, damaged himself on the first day's practice, though not seriously."



"WE HAVE NOT HEARD much about self-starters of late. It is an open secret that a year or so ago various experiments were being carried out. Personally, I have my doubts whether dyno or other starters will ever become popular. It is, of course, fairly easy to provide something of the sort in the case of a multi-cylinder two-stroke, since there is comparatively little resistance for the starter motor or dynomotor to overcome. Indeed, there is at least one machine on the market so fitted. With a four-stroke the position is very different, especially with a four-stroke single. To-day, if a manufacturer decides that his engine is not so good as starting in cold weather as it might be, he can usually overcome the difficulty quite easily by telling purchasers to use a light-grade oil. Several makers have saved their bacon by doing this. No, I have little reason to believe that self-starters are 'coming', except perhaps on one or two exclusive-type four-strokes and maybe on a two-stroke. The bug-bear of difficult starting has been largely overcome by the modern light oils and by better magnetos. Multis, too, are helping, because a multi-cylinder engine is nearly always more likely to 'hit' than a single. The one thing which is

tending to make starting more difficult is the adoption of plain bearings. The result is a larger area of oil film, and if that oil becomes viscous when the temperature is low, much more effort is required via the kick-starter. The signs are, however, that plain, fully-floating big-end bearings will be extremely popular a year or two hence. As you may know, one advantage of a big-end that stands up and does so indefinitely is that there is very little cylinder wear. If any maker is having trouble with cylinder wear the knowledgeable ask, 'Are you having any big-end trouble?' and when the reply, as usual, is 'Yes!' they remark 'Over-come that and your worries will be finished.'

"OUR ROAD SYSTEM to-day is that of the eighteenth. century, with a few trifling improvements."—Mr Bowman, of the British Road. Federation."

"PROBABLY FEW PEOPLE are aware that there exists a concern called the Channel Tunnel Company. The object of the company is to obtain permission from the French and British Governments to press ahead with a tunnel scheme. The latest news is that the French Government is to be approached once more. The military value of the Tunnel will be stressed. It would be difficult to exaggerate the value of the Tunnel as a fillip to Continental touring."

"THE AA ISSUED nearly 1,000 England to Near East and India motoring routes last year."

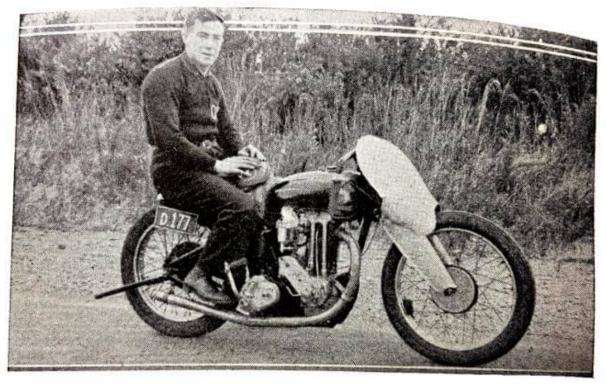
"BRITAIN PRODUCED OVER 100,000 gallons of home-distilled fuel in 1937."

"THERE ARE ABOUT 560,000 miles of road in Canada; 445,000 are earth-surfaced."

"THERE ARE 26,800 motor cycles in use in Switzerland, according to the latest figures."

"CHELMSFORD POLICE suggest banning live stock from the streets during certain periods, in order to ease traffic jams."

"A MOTORIST CONVICTED of driving while drunk near Capetown was sentenced to six strokes with a light cane."



"This is Llew Evans, who recently. established a new New Zealand record by attaining 114.65 m.p.h. on his OK Supreme."

"A PROJECT FOR A new road and bridge in Papua was dropped because the natives believed that an evil spirit would be enraged."

"BELGIUM HAS over 67,000 motor cyclists,"

"ACCORDING TO THE League of Nations Monthly Bulletin, last year's production of cars was only 4,000,000, compared with more than 6,000,000 in 1937."

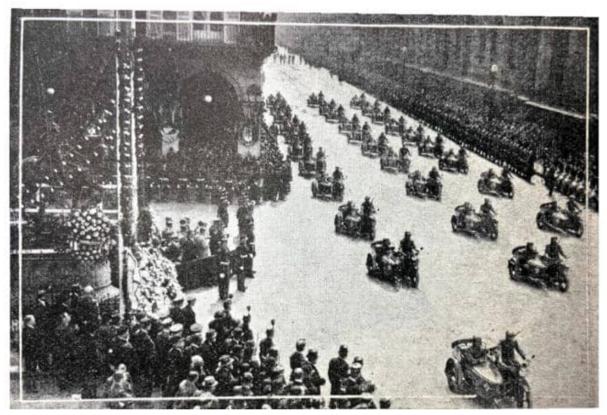
"MAJOR ATG GARDNER, the racing motorist, recently covered the flying mile at over 203mph with a 1,100cc MG Magnette."

"AN ITALIAN DRIVER of a 350cc car has just:broken a mile record with a speed of just over 90mph. The engine is of the single-cylinder type."

"THERE ARE NOW about 27,000 motor cycle in use in Switzerland."

"SEVERAL OF MY AUSTRALIAN correspondents denounce the proposal to fit tail-guards on dirt-track machines. They hold that the essence of the sport is its spectacular nature, and that it would be a blunder to deprive the riders of any tactic which skill can employ to achieve victory, or to rob the spectators of the thrill they experience when the leader fills up his pursuer with a shower of cinders. Incidentally, they display great interest in the gear ratios used over here, and want to know how individual riders vary their gear ratios to suit the various tracks."—Ixion.

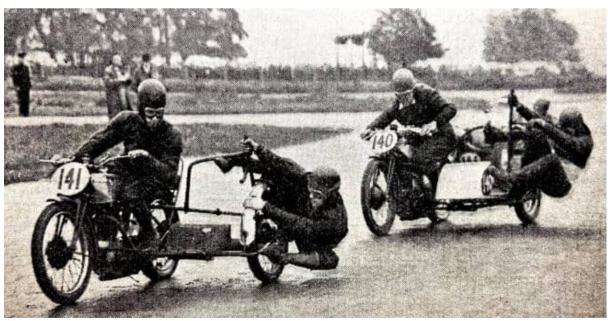
"I WONDER HOW MANY London riders are aware that the various men's institutes organised by the London County Council offer rather attractive opportunities to motor cycling clubs which lack the desired accommodation. It is possible in some areas for such a club to be accepted as a 'class' without any admixture of outsiders, retaining its identity in every form. The amenities, for example, might include heating, lighting, canteen, garage, together with a qualified lecturer on such topics as the petrol engine, foreign travel, map reading, camping, etc. Any secretaries of London clubs who encounter difficulties about indoor accommodation and winter programmes should get in touch with one of these LCC Men's Institutes. Mr CT Bird, who is head of the institute at Gifford Street School, N1, is an enthusiastic motor cyclist, and can supply all relevant information."



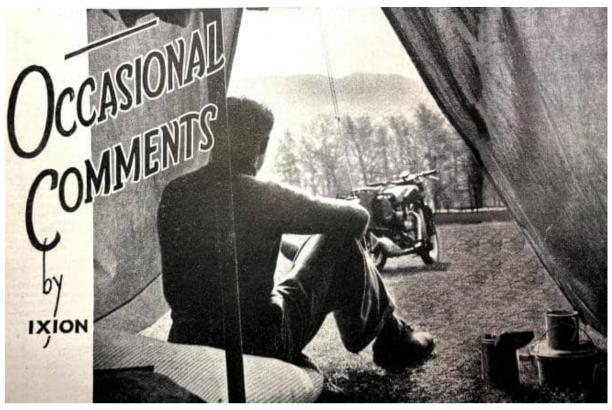
"French army on parade: An impressive glimpse of part of a big army parade in Paris. The parade was staged in memory of Joan of Arc, and was watched by M Edouard Daladier."

"THE ULSTER GRAND PRIX, due to have been held on August 19th, has been abandoned on account of insurance and other difficulties. The authorities insisted that the Ulster Club should effect a policy of insurance against possible claims for damage to the lands and hedges of the farmers whose holdings adjoin the course, and apparently the Club was unable to meet this requirement. As we go to press there is a report that the Government have rescinded their demand and offered to allow the Club to organise the race with the same insurance as was effected last year. There is still a possibility, therefore, that this famous road race will take place as arranged."

"THE SAND-RACE MEETING organised by the Carmarthen Club at Pendine was virtually two meetings in one. The morning session was restricted and for machines in standard trim; and in the afternoon the open racing events were held. The course dried hard and racing conditions were just about perfect. The standard-class sprints provided some tight finishes. RC Lewis (Norton) just pipped MG Taylor (Velocette) in the 350cc event, and Miss Mona Lewis (Norton) beat B Edwards (Ariel) by a short head in the 600cc event. The four-mile races, however, provided easy wins: RC Lewis (Norton) was too fast for PG Sivell (BSA) in the 350cc class, in which there were only two finishers, and E Stephens won easily from TR Rees (Ariel) in the 600cc event. Both classes were run off together in the 10-miles race. PG Sivell (BSA) was the sole survivor of the 350cc starters. The 600s had a keen struggle, however, and TR Rees (Ariel) eventually won from RM Rees (Triumph Twin) and B Edwards (Ariel). The racing sprints were very close affairs. In the 350cc class, LV Thomas, on a very ancient sprint Sunbeam, was only just beaten by E Stephens (Norton); and RC Lewis (Norton) just pipped H. Billington (Rudge) in the 600cc race. LV Thomas was again to the fore in the six-mile race, and he chased the Nortons until he coasted in with a seized motor. The high-light of the day was the 30mile race for 600cc machines. LF Griffiths (Norton) was soon in the lead, with H Billington (Rudge) and RC Lewis (Norton) on his tail, and the rest of the field strung out behind. Several riders came to grief in this race, one of the corners becoming very loose. Among those who fell was Billington, and this put him out of the race. RC Lewis could make no impression on LF Griffiths, and this order remained. A 10-mile 600cc race was the last item on the programme. LF Griffiths (490cc Norton) had extremely bad luck, for he oiled a plug. H Billington (Rudge) led for several laps but was eventually passed by RC Lewis (Norton) and afterwards retired. This left second and third places to F. Bosisto (348cc Norton) and E Stephens (348cc Norton)."



"An incident in one of the thrilling sidecar races at Donington on Whit Monday. The passengers are hanging out in readiness for Redgate Corner."



"PICTURE OF A CONTENTED MAN: A good, snappy solo, a weathertight tent, a pleasant pitch—what more could the keen out-of-doors man want? Here, at any rate, is the picture of a contented man!"

"HAPPY ARE THOSE MOTOR CYCLISTS whose wheels rev Manxwards this June. Gigantic entry! Formidable foreign entry! All three races wider open on paper than they have been for years! The only dubious essential to a gorgeous week is the weather risk. We had a marvellous spell of sunshine at Whitsun, and we are all wondering whether that miniature heat-wave was just a flash in the pan or the start of a long drought which will not end till the chequered flag hails the Senior victor home on Friday, June 16th. What a thrill it will be if the new blown-multi Velocette receives that flag after a hectic duel with, say, Meier on the BMW! I happen to know a few details of some of the readers who are seeing their very first T.T. in 1939, notably a gallant lad who has been fighting TB in a succession of sanatoria for some years past, and who is now enabled by better health to gratify a dream which has never left him through many months of pain and weakness. To him and that unknown army of enthusiasts who share his dreams, a grand race in full sun which will be a lifelong memory!"—Ixion.

"YESTERDAY I GOT REALLY CROSS—an unusual experience for such a mellow philosopher as myself. I was in a tearing hurry, and in a small provincial town I was held up for a solid quarter of an hour in the worst jam of assorted traffic I have ever seen anywhere. Even the peds were properly held up. At last I put the bus on its prop stand and squeezed afoot to see what was happening, for the only detour available would have cost me miles. Arrived at the focus of the vortex, I found one of those road trains

which transport country fairs from one small burg to the next. The train in question consisted of five huge vans towed by a steam engine containing a small zoo, a merry-goround and a calliope (or steam orchestra). I began to fume with rage that such obstructions should be permitted on the roads in 1939; and then my rage was converted to reverence. Its unlucky driver had to coax the equipage at right angles out of the narrow main street into a lane leading to his fair-ground pitch, and the lane was literally only a foot wider than his fattest van (containing live lions!). Naturally, since no power on earth could have reversed this unwieldy and colossal serpent, the driver could not afford the ghost of a blunder, nor did he make one. He put his engine into the lane at its dead centre, with precisely six inches freeboard on either side; and, moving at about half a mile an hour, he threaded the lane to perfection. I wouldn't have been in his shoes for £1,000, and, though all we held-up motorists had been cursing freely, I feel we ought to have passed round the hat for him. He is the finest driver I ever met."—Ixion.

"Thunder and Lightning —No, I don't mean the noisy type. Down West this is the name of a particularly toothsome tea-time dainty. You take a Cornish 'split' or Devonshire 'cutround' (both of which are light, white scones); anoint it with a luscious spread of golden syrup; top it off with a great dollop of the local clotted cream; and open your mouth very wide indeed. It is a toss-up whether an éclair, a doughnut or a 'thunder-and-lightning' is the most difficult to devour gracefully! Londoners apply butter beneath the treacle, but your true Westcountryman considers that cream and syrup furnish sufficient richness without the butter."—Ixion.



"Cool-headed? Well, you have to be for hot-stuff riding like this. The stunt-rider is HF Taylor, and he is seen performing at Tunbridge Wells (Kent)."

"PROBABLY NEVER IN THE HISTORY of motor cycling has there been an era in which design is changing so rapidly. That spring frames are likely to be exhibited on nearly every stand at the Earls Court Show in November is known to all. What is not common knowledge is that there are at least seven new twin-cylinder engines at present under construction or in the design stage. At last our age-old plea that the industry should develop multi-cylinder engines and spring frames seems to be bearing full fruit. In other words, at long last the industry is demonstrating by its actions that we, as practical riders, in our constant demands for multis and spring frames were right. Already the term twin-cylinder reliability is coming into common usage. That is one important asset of a well-designed multi: it is reliable, and this applies not merely to the engine unit but also to the trans-mission side, which, with the smaller and more frequent power impulses, is less highly stressed. Perhaps of even greater importance so far as the future of motor cycling is concerned is the greater degree of apparent silence that a multi-cylinder engine affords. Noise is the cause of the vast majority of the prejudice that has been stirred up against motor cycles. With a high-compression, single-cylinder engine noise is almost inevitable, and because of its intermittent nature it is apt to be objectionable. The widespread adoption of multis will, as we have constantly stressed,

do more than anything else to kill prejudice. From the rider's angle there are many advantages—not least the ease of starting a multi and the higher all-round efficiency."



"Stanley Woods, winner of the best-supported race of the week, on his single-cylinder ohc Velocette. He won by the narrow margin of eight seconds, repeating his last year's victory and scoring his 10th TT win."

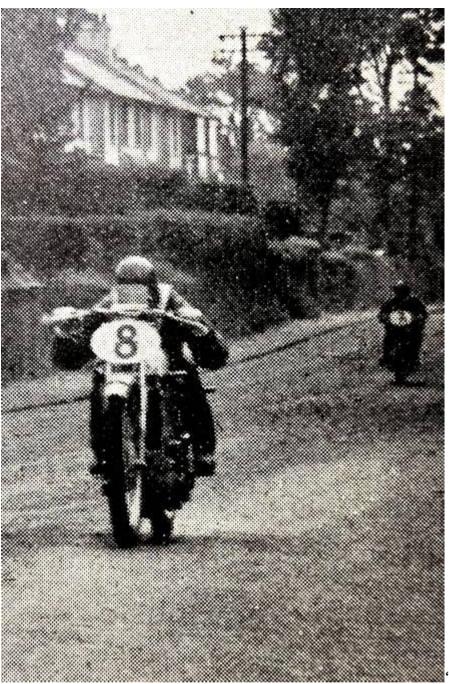
"THE JUNIOR TT RACE instantly developed into a furious triangular battle between Velocette, Norton and DKW. The previous record speed was never attained owing to the strong, bitter wind, which gave the men an exceptionally trying ride, while the enormous field of 61 starters made overtaking unusually frequent in the early stages. FL Frith (Norton) led by a small margin for three laps, with Stanley Woods (Velocette) holding a watching brief. The Norton's engine failed on the fifth lap, from which point Woods led to the finish, hotly chased by HL Daniell (Norton), H Fleischmann (DKW) and EA Mellors (Velocette), none of whom was able to press him really hard. HL Daniell (Norton) had a spill on a wet patch of road during a shower of rain in Ramsey early in the race, but put up his typical fighting finish, and would have won if he could have beaten the lap record by four seconds on his last lap! This tigerish effort just failed, and he finished eight seconds behind Woods. H Fleischmann (DKW) and EA Mellors (Velocette) started 20 seconds apart and rode neck and neck for some 260 miles, and finished third and fourth deafened by the double exhaust noise. MD Whitworth (Velocette) rode a grand race for fifth place, with Wünsche (DKW), sixth. Unfortunately, two men were seriously injured. Simo (Terrot), the Spanish veteran, fractured his skull in a solitary crash, and HB Waddington (Norton) sustained severe injuries when he fell at Bray Hill with two men on his heels, one of whom could not possibly avoid him. Thirty-five riders finished, of whom 26 secured-first-class replicas and eight second-class awards. The manufacturers' team prize fell to Velocettes; the Derby Club took the club prize. Many young riders added to their reputations, especially FJ Mussett (Velocette), of Australia, who secured tenth place. The race was a magnificent demonstration of high-speed reliability: 34 men completed the course at over 70mph. The fastest lap was recorded by HL Daniell (Norton) on his seventh circuit—five seconds outside the 1938 record. As early as 5 o'clock this morning Douglas awaked to reverberating exhausts as a great influx of enthusiasts got busy.



"HL Daniell (Norton) roars past a miniature grandstand at Crosby."

Apprehensive weather conditions greeted those who were first astir. A cold and strong north-north-west wind, with bright sunshine, prevailed for the most part, with the Scottish coast often visible, but great slabs of leaden cloud scudded across at intervals and occasionally a few icy raindrops fell. The tide turned just before breakfast and brought a clearer sky with loftier clouds. Before the start visibility was perfect and there was every promise of a bright, cool day, but thick coats were the usual wear as the eager thousands crowded all the popular stances. Flags tore at their masts, bands played, the riders warmed up cold engines in an inferno of noise, and now the 61 starters moved in proud and gay procession on to the grid-iron, looking up gratefully at the ebony silhouette of the mountains against a pearly sky. The non-starters were F Vaasen, L Cora, LV Perry, J Williams, E Kluge, C Redfearn and GV Dickwell. The huge field necessitated reducing the intervals between starters to 20sec lest the first man should complete a circuit before the last men left. The roads were bound to be cluttered up for two or three laps with lots of overtaking. Stanley Woods was a warm post favourite, with

the Germans respected rather than dreaded. Sharp at eleven the maroon crashed, and young Ebblewhite dispatched the riders at three per minute with a crackle almost as continuous as a tommy gun in a crook film. Spatters of rain were reported from Ramsey just as H Fleischmann (DKW) effected the promptest and speediest of getaways. Twelve nations were represented in the field, if you count Ireland and Scotland separately. Woods was entering Ramsey at 90 when 25 men were still waiting to start. The boards showed no stoppages at this stage. Marshals reported petty showers to the North. Tension grew increasingly acute as no hint regarding relative speeds could be gleaned from the dials. No 68 got away just after 11.20am, when Woods, No 1, was already flashing down to Craig-ny-Baa. There's the dull roar of his exhaust in the far distance. He is not going to break 85 for the full lap. Here he is; he receives no signal. And now comes Frith (Norton) who has passed three men, and Wünsche (DKW), who has caught two. Young Lockett (Norton), who is deemed a budding star by many, has caught two men, too. Times are slowly hoisted. Yes, Frith is 23sec faster than Woods.



S Wünsche peering

through his tiny handlebar screen as he charges through Ramsey with his 350cc DKW bellowing its deafening war-cry. Behind is GH Hayden (Velocette)."

Wünsche is not quite so fast as his bellowing exhausts suggest, but Fleischmann (DKW) looks faster—yes, eight seconds ahead of Woods! Far away Daniell (Norton), who started 51st, is cutting a cracking pace. We can't size up the race until he appears. Meanwhile, Foster (AJS) pauses at the pits with a pair of broken goggles, and maybe glass in his eye. He is treated, and proceeds. JW Beevers (Velocette) and HB Myers (Velocette) come off at Quarter Bridge; CH Manders (Excelsior) is out with gear trouble at Bray. Ah! Here's Daniell at last—17sec behind Frith. The factory which is not officially racing stands first and third, with Fleischmann second, Woods fourth, LJ Archer

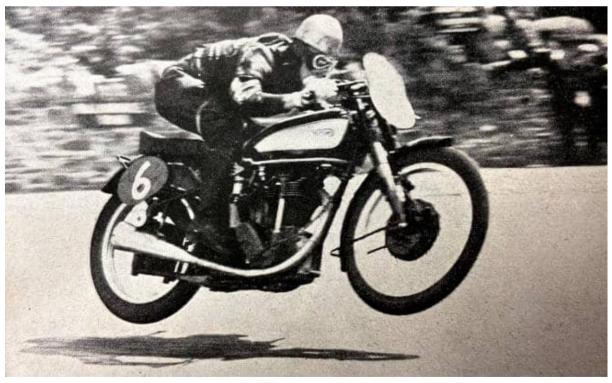
(Velocette) fifth, EA Mellors (Velocette) sixth. So there's three Velocettes, two Nortons and a DKW inside a 38src cluster—fierce going, this! And now our turn for a spatter of cold rain, as 'Crasher' White (NSU) retires at the pits with plug trouble. Early on Lap 2 there is a horrid affair at the foot of Bray Hill. HB Waddington (Norton) came off after touching SA Sorensen (Excelsior); Waddington goes semi-conscious to hospital with facial injuries and other damage, but Sorensen gets off lightly. Meanwhile, the leaders continue their lightning laps. Woods picks up a mere couple of seconds on Frith, but is now informed how things stand, and will surely open out. Fleischmann (DKW) slows down perceptibly, Mellors (Velocette) accelerates very definitely, and Daniell (Norton) takes a



AR Foster (AJS) cornering at Ramsey makes a right-angle bend seem so easy. Note the angle at which the AJS is heeled over."

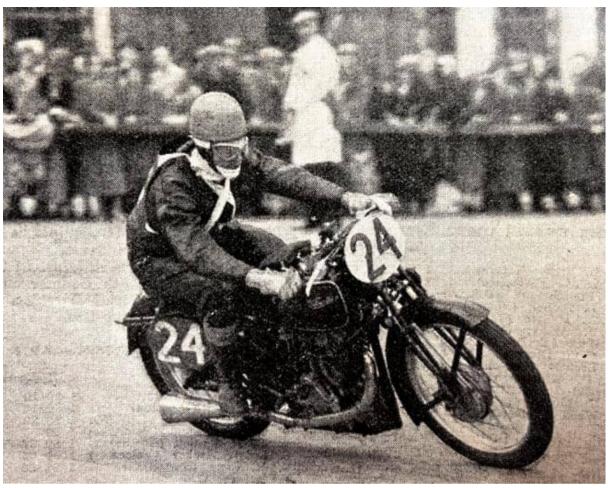
toss in the Square at Ramsey and continues with some metal part hanging down. But just look at these times for the second lap! Woods, 26min 54sec; Fleischmann, 26min 55sec; Frith, 26min 56sec; and Mellors, 26min 58sec. There's racing for you! Daniell is now fifth, after a 27min 55sec lap, and Archer sixth, lapping his second circuit in 28min 17sec. It is still trying to rain, but the cold wind has ended the fly plague for the moment. Behind the leaders, a huge jam of slower men fight for replicas. In so big a field it is hard to pick out the middle men, whose prowess passes un-noticed while the stars try to crack each other up. MD Whitworth, ER Thomas and S 'Ginger' Wood, on Velocettes, are all fast; M Cann and J Lockett, on Nortons, enhance their reputations; Wünsche (DKW) is a good second string to Fleischmann (the NSU stable must regret they ever let

Fleischmann leave their roof). News comes through that Waddington was quite seriously hurt in the mishap at Bray Hill. Several people hit the sandbags at the Craig, and a number of minor tosses involving no real injury are reported. M Simo (Terrot) hits a concrete post on Snaefell; HG Tyrell Smith (Excelsior) copies Daniell's tumble in Ramsey Square; K Bodnier has his NSU engine go sour on him in Ramsey, but carries on; and J Lockett (Norton) skids at Craig-ny-Baa, but suffers no personal injury. Now comes the psychological moment for record laps. With men like Frith, Woods and Fleischmann circling at almost identical speeds, fireworks are expected. It is astounding that we have had no record lap so far. The clocks jerk rhythmically—what a pity that Daniell just overrode himself that fraction at Ramsey, for Frith is likely to need support in this clash of supermen. Here is Stanley finishing his third circuit—what is his lap time? We do lightning subtraction from the 'growing' times on the board: 27min 41sec. That is not too good. Here's Frith, who started 100 seconds behind Stanley, in 27min 49sec. Why, they're decelerating a trifle! That is queer, surely? And Fleischmann? Twenty-eight minutes dead! Frith got within eight seconds of record on his second lap. Can it be the wind? It does not seem any rougher in the shelter of the stands, and there has not been any real rain anywhere. Perhaps at the finish the stars themselves. may expound this TT mystery, which is wholly inexplicable at the moment. Why, Daniell, in spite of his trouble, is faster, than any of them with a third, lap in 27min 34sec. He is actually 61sec behind Frith, but if he can go on picking up 15sec per lap on his stable companion for four laps, he will be thereabouts when the chequered flag waves. A very, very queer race. Anyhow, let us be thankful



"Is Bray Hill smooth? This remarkable untouched picture of Freddy Frith (Norton) reveals what the surface is really like. Frith's front wheel is a good 8in off the road."

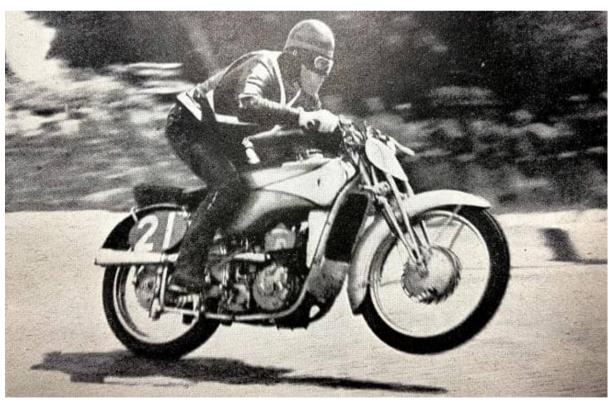
that whatever bit is waggling loose on Daniell's Norton it doesn't affect his speed. As an anti-climax, Lunn (Velocette) is reported coasting in from the Bungalow. The battle between the leaders renders us temporarily blind and deaf to lesser men. Deschamps cracks his collarbone at Close Woods. Woods circles furiously after his pit stop, but 28min 3sec is not fast, even from a standing start, as champions go. However; it is just quick enough to hoist him into the lead by two seconds, for Frith can only put up 28min 18sec. also, of course, inclusive of a pit stop. What about Fleischmann on the flying DKW? Great heavens, he's equalled Stanley's time of 28min 3sec, and is now definitely outriding Frith, whose engine does not sound the least bit healthy. The Norton banner may be in Daniell's hands after all, and that slip at Ramsey may yet cost Nortons dear. But Mellors also has ideas in his head. Mellors covers his fourth circuit in 27min 32sec, and Daniell in 27min 42sec, so the second Velocette is now fourth. Yet a third model, gallantly ridden by Archer, climbs up into sixth place. Well, at any rate, we are clear of pit stops, and unless some invisible giant hand is stopping the men, now is the moment to open up and smash records. Fleischmann, who was trained by Walter Moore with the NSU équipe, is still looking extremely formidable. Meanwhile, Ruhrschneck (NSU) tours past the Bungalow with Bodmer on the pillion, and Rose (Velocette) retires with plug trouble at Craig-ny-Baa. Still no record-breaking. Cauchy comes off at Handley Corner. Stanley Woods treads on it a shade harder and registers the fastest lap so far to-day in 26min 45sec, which is 12sec outside the 1938 record. And now comes the first terrific sensation, for Frith retires at Ballaugh with engine troubled leaving the DKW sandwiched between Woods and Mellors on their Velocettes. Shades of



"ES Oliver (Velocette) heeled well over at Parliament Square, Ramsey."

Joe Craig! We have almost forgotten that a Norton can retire—and with engine bother at that! How is Fleischmann going? Just 27min 8sec for this circuit, and he is now 35sec astern of Woods. Mellors is too slow to hurt the DKW—a 28min 24sec circuit contains no hope of overhauling Fleischmann. He and Woods must settle the main issue alone. Cherriman (Norton) pushes in from Governor's Bridge. Meanwhile, Wünsche (DKW) is going really well, though not yet sufficiently at home on this circuit to make the leaders nervous. But Nortons are not yet out of the hunt. Daniell, undisturbed by his early spill, pulls out a lap in 26min 44sec—eleven seconds outside record—squeezes nine seconds ahead of Fleischmann, and snatches second place. Just like him—he revels in a slow start and a devilish finish. But he's got a lot to do. He is still 26sec behind Stanley, and his lap speed is only a second faster than that of the flying Velocette. ER Thomas is riding home on Cauchy's pillion. We now brace ourselves for a tight finish. Incidentally, Mellors and Fleischmann started as Nos 20 and 21 respectively, and have passed and repassed each other frequently, with the added factor of pit stoppages. Woods never falters, but clocks a 26min 42sec lap. Either he is all out or considers his speed adequate. Has he been told that Daniell is trying to stage yet another furious finish? The clocks show Mellors and Fleischmann neck and neck all the way round—owing to the starting vantages they pass us with the DKW a dozen yards ahead, when Daniell on the

same lap is still at Ramsey. What an artist Woods is! He evidently taped out the requisite speed, placed himself fourth on Lap 1, pushed up to third and then second when Frith's unexpected speed threatened him, took the lead on Lap 4, and then just kept the model moving fast enough to stall off Fleischmann. Only a crack-up, or a fiendish spurt by Daniell can beat him. Croft (Norton) retires with engine trouble at Hillberry, and Craine (Norton) suffers a similar fate at Kirkmichael. Fry falls at Milntown. Mellors wrings a lot back from Fleischmann, but neither can disturb a non-stop Woods. Daniell arrives punctually. His time? Ah, he's only picked up 3sec on the Velocette, and he cannot hope to recover 23sec on the seventh lap from an informed and resolute Stanley. It must be all over bar the shouting. Daniell's sixth lap (6sec outside record) is the fastest up to this point. Loyer (Velocette) tours in. Stanley suffers no cruel stroke of fate, and reels off his seventh lap smoothly after a most beautifully judged race. Point by point he is reported safe and swift, and is welcomed home by a crowd that scarcely seems to comprehend the judgment with which he has ridden. Mellors and Fleischmann continue their long duel for third place, changing positions every mile or two, never more than 100 yards apart in space, but devoid of any chance of victory. Somewhere in the hinterland poor dogged Daniell curses his spill, gets his signals showing what a desperate stern chase he is flogging, and probably knows he cannot catch Stanley, who started 17 minutes before him. He could do it if his model can beat record by four seconds, but it has hardly shown the pace to-day. Fleischman's DKW and Mellors' Velocette flash over the finishing line 50 yards apart—



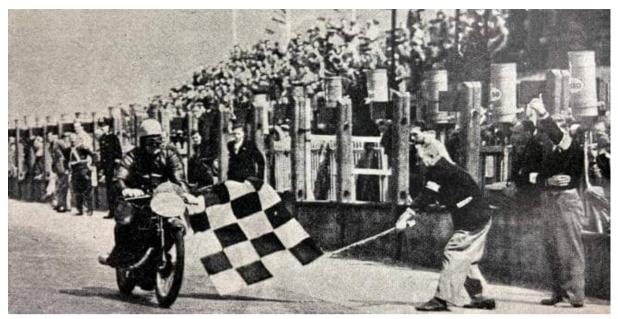
"H Fleischmann's DKW takes off on the descent of Bray Hill. He finished third, only 95 seconds behind Stanley Woods."

Mellors must regret those fatal 23 seconds which he conceded on Lap 1. Nothing remains but to watch Daniell's clock; he can't be in for ten minutes yet. Sympathetically we wonder whether he is trying with clenched teeth to put up a super record and score the greatest victory in TT history, or aware that he is short of knots, and going steadily for a safe second place. Everybody with a stop-watch is timing. The dial clicks—the verdict is that he hasn't a chance. In turn he passes Kirkmichael, Ramsey, Bungalow, Craig-ny-Baa. The red light shows he is at Governor's Bridge—has he a chance after all? He's faster than we thought. Here he is, flat-out and right down to it! No, he's beaten, surely? Time, please, Ebby, Time? Oh-h-h! Woods wins by eight seconds! That spill in the square at Ramsey was the decisive moment of the entire race, for on the last lap Daniell could only circle five seconds slower than the 1938 record.



"A glimpse of the Junior TT: JH White (NSU) passes through Ramsey with HL Daniell (Norton) closing up on him. Shortly afterwards. Daniell went past."

RESULTS: S Woods (Velocette), 83.19mph; 2, HL Daniell (Norton); 3, H Fleischmann (DKW); 4, EA Mellors (Velocette); 5, MD Whitworth (Velocette); 6, S Wünsche (DKW); 7, M Cann (Norton); 8, S Wood (Velocette); 9, JG Little (Velocette); 10, FJ Mussett (Velocette); 11, LG Martin (Norton); 12, GH Hayden (Velocette); 13, HG Tyre11 Smith (Excelsior); 14, NB Pope (Velocette); 15, WT Tiffen (Velocette); 16, J Lockett (Norton); 17, ES Oliver (Velocette); 18, L Dear (Velocette); 19, HC Lamacraft (Velocette); 20, WF Rusk (Velocette); 21 G Newman (Velocette); 22, FJ Binder (Velocette); 23, GE Rowley (AJS); 24, LJ Archer (Velocette); 25, CF Brett (Velocette); 26, JC Galway (Norton); 27, JW Beevers (Velocette); 28, SM Miller (Velocette); 29, LR Higgins (Velocette); 30, JM West (Velocette); 31, J Garnett (Velocette); 32, HB Caldwell (Velocette); 33, R Gibson (Velocette); 34, GH Briggs (Norton); 35, HB Myers (Velocette). First-class replicas were won by the first 26 riders; second-class replicas by the 27th to 34th riders to finish, inclusive. Finishers: There were 61 starters, of whom 26 retired. 01 the 35 finishers, 34 gained first- or second-class replicas. Manufacturers' Team Prize was won by the Velocette team (Stanley Woods, EA Mellors and LJ Archer). Club Team Prize was won by the Derby and District Club (Stanley Woods, EA Mellors and S Wood).



"The chequered flag almost flicks Stanley Woods' left arm as he crosses the line, the Winner by eight seconds." Velocette's celebrations were dampened when Harold Willis, whose foot gearchange had contributed to its Junior victory, died suddenly of meningitis during race week.

"THE WINNERS SAID...Interviews with the First Three Home. The first three men home all finished surprisingly fresh. Stanley Woods said that he had had one of the hardest races of his career—his nose had been on the tank pad practically all the time. He had a fairly comfortable ride, but his damaged hand was in need of a little massage when fie finished. His big surprise was to find Daniell so close behind on the last lap, for according to a pit signal he had received at Ramsey he (Woods) was well ahead, and in consequence he eased back a trifle—'Not that I exactly tarried, even then,' he said. Daniell, like Woods, received a great ovation. He said his greatest handicap was the sudden rain squalls encountered round the back of the course, which made visibility difficult (Daniell, of course, wears spectacles). He had had a trouble-free run except for his spill at Ramsey on the second lap. This spill, incidentally, put his rev counter out of action—and from then onwards his lap speeds gradually improved! He was very satisfied with his machine, but thought that, having regard to the windy conditions, it was rather overgeared. Fleischmann, the third man home, speaks little or no English. However, to questions as to whether he had had a 'gutte reise' he replied, 'Ja, sehhr gut!' and seemed very pleased with his performance. And, judging by his smiling countenance, there seemed little doubt about it!"









L-R: "Norman Croft (Norton) scrapes past HC Lamacraft (Velocette) on the drop down to Quarter Bridge." "An impression of Freddy Frith (Norton) on the first part of the S-bend at Braddan Bridge." "Fleischmann (DKW) chasing EA Mellors (Velocette). These two scrapped with each other almost throughout the race." "HB Waddington (Norton) hurtles down Bray Hill close to Sorensen (Excelsior), tries to pass—the machines touch and Waddington comes off."

"HOW THEY FINISHED. It is now positively normal to find all the placed machines in perfect condition, and this year's Junior was no exception. It is, however, interesting that the machine on which Stanley Woods won the race bad been placed fourth in 1937 and first in 1938. With the exception of almost imperceptible differences which produced the odd extra horse, it is unchanged and finished to perfection. The worst that can be said of it is that it was mildly oily aft of the saddle tube. Tyres, plugs, chains, valves, and head joint were in perfect condition, and there was plenty of movement left in the brake and clutch controls. Daniell's Norton was in equally good condition. However, as compared with the Velocette, the rear tyre was, perhaps, a trifle less worn, and the primary chain showed rather more slack. The whole of the revolution counter drive had been broken off in his fall early in the race. Fleischmann's DKW was mechanic-ally perfect, the rear tyre was rather more worn than that of the other place men, but was good for many more laps. The plugs (unchanged) were in perfect condition, and so was every visible part of the engine. Under the water-cooling head jacket are two separate light-alloy heads, each having no fewer than twelve holding studs. Such little carbon as was visible could be scratched off with the finger-nail, revealing perfectly polished combustion chambers."



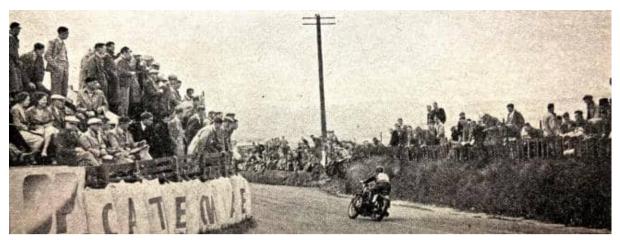
"THE 1939 SENIOR TT produced a fine German victory, G Meier (supercharged BMW) leading from start to finish and winning easily in 2hr 57min 19sec (89.38mph), which is 0.27mph faster than Daniell's winning speed last year. Behind him JM West (BMW) held second place throughout, finishing in 2hr 59min 39sec (88.22mph). The British stars were curiously unable to reproduce their 1938 speeds, and never looked like holding the German machines. Stanley Woods (Velocette) and FL Frith (Norton) had a lengthy duel behind the two German machines, the Norton man eventually securing third place in

3hr 0min 11sec (87.96mph). As Woods and Frith, riding identically the same machines, finished at 88.99 and 88.98mph last year, it would seem that the wind this year was deceptive and slowed the unblown machines more than was suspected. Forty-seven riders started, including no fewer than 18 Junior machines. There were 30 finishers, of whom 13 qualified for first-class replicas, and 14 for second-class replicas. The trade team prize was secured once again by the Velocette trio (Woods, Archer and Mellors), while the club team prize was awarded to the Derby and District MC 'A' team (Whitworth, Woods and Mellors, all on Velocettes). The weather conditions were ideal for spectators, bright sun shining throughout. The roads were bone-dry and visibility magnificent. Although the gross speed was slightly higher than in 1938, the lap record was never in danger; Meier got within four seconds of it on his second circuit. Legend tells how in prehistoric days some pagan deity adopted the Island, and as a protection against powerful foes bestowed upon it the magic 'Mantle of Mona'. This took the form of some fifty cubic miles of mist, designed to render it invisible to its enemies in emergencies. Unfortunately for us, the deity cannot distinguish between an air raid and a TT. Mistaking the DKW exhausts on Wednesday for hostile aircraft, be duly dropped the magic mantle, and until late on Thursday Mona was so completely blotted out that the prospect of a postponed Senior threatened us. Discovering his blunder during Thursday night, the pagan deity switched off the cloak of fog, and from dawn on Friday brilliant sunshine intensified all the natural colours of the landscape. In the small hours seven steamers approached, bearing thousands of unshaven and towsled enthusiasts, who sighted the mountain silhouette clear-cut in green and russet and purple, rising against an azure sky out of glassy seas sparkling with a million golden spangles. Sirens whooped, gulls screamed, exhausts



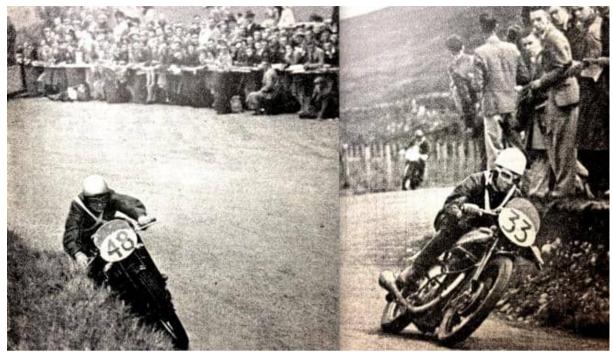
"With both wheels well clear of the ground after the heart-stopping swoop down Bray Hill. even the German ace, Meier, has cause to look serious."

barked. Breakfast over, the roads were swiftly flooded with every imaginable form of transport from Shanks' pony to Rolls-Royce. Great crowds thronged every seat and stance along the 37½ miles of tarmac, animatedly discussing the impending battle of international giants. There had never been any real hope of the new blown twin Velocette being given a run; it had only been brought over for a lap to test its handling. But it leaked out that during the winter their single-cylinder had grown an extra half-horse-power, and Stanley Woods' quiet confidence and notable genius made it a popular favourite. Although the Norton factory is not 'officially' racing this year, all three of their peerless 1938 machines were present, and the jockeys were Daniell, Frith and 'Crasher' White, as before. Moreover, a significant detail caught all eyes at Thursday's weighing-out—each 'works' Norton displayed a small extra tank above the fat, grey fuel-containers of 1938. Meier had averaged practically 89mph throughout practice with nothing but his own dauntless spirit to urge him on; even if his fastest circuit over a still further improved course was 12sec under Daniell's 1938 record, the German sergeantmajor was hall-marked as Public Danger No 1,



"Australia's representative, FJ Mussett (348cc Velocette) takes a middle course at the Craig in front of an eager gallery."

the more so as he had been enlisted in the Auto-Union car-racing team, and was excused solely for this race. West was known to rank as a very dangerous second string to Meier. As the corners and surface of the circuit had received renewed attention during the winter, some wholesale record-breaking was confidently anticipated under pluperfect conditions. On the whole, Woods, on the Velocette, could claim most support at the start. The usual routine preliminaries executed in typical ACU fashion, The Governor arrives. The tent is unlocked. Engines are warmed-up in an inferno of noise and blue smoke. Riders are led in procession to the gridiron. The Governor shakes hands all round. Padre Stenning, an ideal announcer, does his stuff over the microphone, putting newcomers wise to every detail, and expressing our hearty welcome to the eight racers from overseas—five Germans, a Finn, a South African and an Australian. Ebblewhite Junior, as imperturbable as his sire, emerges from some secret lair with two watches in a mahogany case, and his small flag. The flag falls; the maroon crashes; Daniell heaves at his Norton, and the battle begins. High clouds overhead roof the gay scene; and tongues begin to wag their hopes and fears and surmises. Daniell easily beats 90mph to the first telephone point at Ballacraine. The stars are



""Hedge-cutting is the general rule among the stars on the fast swoop round Hillberry. This picture shows AR Foster taking the AJS four round the bend only inches away from the bank." (Right) "How do the stars corner—with or away from their machines? This picture seems to supply the answer so far as J Lockett (499cc Norton) is concerned. He is shown heeled well over for a sharp bend above Keppel Gate."

well distributed over the entry with Daniell No 1, Woods No 10, Frith No 17, Mellors No 28, West on the BMW No 35, and Meier, the cynosure of all eyes, No 49. With twenty-second starting intervals we may be latish all day in sizing-up the proverbial Manx kaleidoscope. At any rate, the riders need fear no discomforts barring flies on their goggles; and if the breeze stiffens a trifle, it will keep the flies away, though at the moment no flags strain out taut from their posts. Everybody got away as surely as if they were pushing off auto-cycles, but West and Meier were definitely the most impressive alike in acceleration and noise. When Newman had left, Mr Geoffrey Smith, *The Motor Cycle* managing editor, handed the chairman of Noble's Hospital a cheque for £500 from the Guthrie Memorial Fund. Simultaneously, encouraging bulletins were broadcast about Monday's victims, Simo and Waddington. The scoreboard showed 47 starters, the absentees being Williams, Redfearn, Perry, and poor Gall. No fewer than 18 350cc machines impudently challenged their seniors—13 Velocettes, three NSUs, one DKW and one Excelsior.



"Although the gate and posts have long been removed from Keppel Gate, the corner is still very tricky. HC Lamacraft (Junior Velocette) and JK Boardman (Norton) are heeled well over on the apex of the turn."

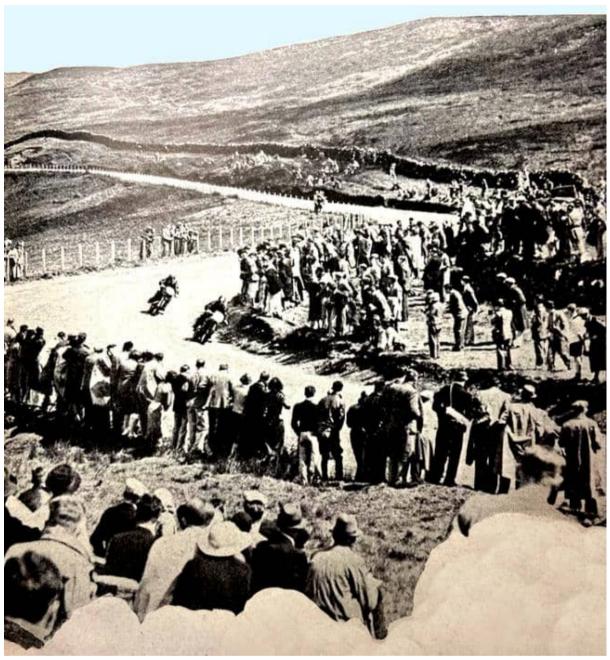
The clocks are an infallible guide to class, even on the opening lap. Woods, Frith, Mellors, West, and Meier all instantly proceeded to gobble up slower men who had started ahead of them, many 350s having to submit to this reminder of their small capacity. Consternation spread, however, when MD Whitworth, on his 348cc Velocette, had the hardihood to catch Daniell's 499cc Norton before the Bungalow, though the big fellow had started 20 seconds earlier. But Meier was catching somebody every six or seven miles! Whitworth (No 2) was first man through, chased by Woods (No 10), who in turn was trailed by Daniell, 200 yards astern with thumb down. A swift glance along the scoreboard suggested that already interest must focus on four columns so far as a leader was concerned; but these four men were so widely spaced that much time elapsed before we knew how they stood, especially as the figures were hardly posted with the usual Manx velocity. Woods was posted first—25min 56sec—good without being sensational; but Woods never hurries till he sees what the pace will be. Then Frith, three seconds slower. A longish wait for West—heavens above, Jock has tied with Stanley! That looks bad, for Meier is sure to be still faster. He certainly is—a whole 52 seconds faster! These racing BMWs are well-explored in every detail; nothing experimental



A glimpse of EA Mellors (495cc Velocette) rounding a fast bend on the Mountain road." (Right) "Stanley Woods (495cc Velocette) flashes through Keppel Gate before an admiring crowd.

about them; what they do, they can keep on doing till the cows come home. Unless Stanley has a couple of aces up his sleeve, or Meier hits the grass, a British victory already seems the most distant of possibilities. The field produces no new British star. None of the next eight are yet recognised as 90mph men, or likely to stem an invasion of top-notch foreigners. But note among them young Lockett (499cc Norton), a rising star, hailed as likely to reach the first magnitude; Maurice Cann on the sole Guzzi entered; and Walter Rusk on the water-cooled four-cylinder AJS, which had plenty of speed in it, but is not yet fully gentle to hold. Meanwhile, unlucky LA Dear (348cc Velocette), retires at Union Mills. SM Miller, similarly mounted, has a stop at Kirkmichael, and JA Weddell (490cc Norton) retires at Ramsey hairpin after damaging his forks in a mild toss. In an anxious flurry of excitement all await the return of Woods. His private signal station will have given him Meier's speed. Woods is an adept at judging a race; he won't necessarily unleash his spare horses (if any) quite so soon as this, but he can't relish being the best part of' a minute behind the German after only one lap. He is now ahead of the entire field in space if not in time, but his arrival is not nearly soon enough. He has lapped no faster than 25min 28sec. Stanley, my boy, that is 35sec outside record; it won't frighten Meier! Is it the best you can do? Is the Irishman gambling on Meier riding wild? Frith is the next British hope due, and he is slower still—if one can fairly apply the word 'slow' to a man who is lapping at 87-odd miles per hour; he is 12sec astern of Stanley now. Faces reflect a grim anxiety as all wait for West—he's shaken off Woods, with whom he tied on Lap 1, by five seconds. Meier is very definitely a goer. He plays no waiting game—we shall probably get a new lap record from him on this turn. His red lamp doesn't glow so soon as anticipated. His time goes up—24min 57sec for the second lap, which spells 90.75mph, and is 4sec outside record. Incidentally, Meier's opening lap was the first

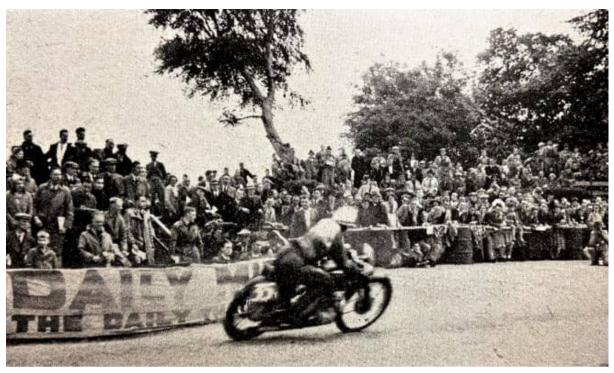
one over 90mph from a standing start in TT history. It looks as if the breeze, which at the stands merely tempers the hot sun, was soaking up a little potential speed somewhere, for the times are not on sensational as was augured. Nevertheless, Meier is leading the field by 78sec after two laps, and is 83sec ahead of the fastest British machine. Meanwhile, AR Foster (AJS Four) pauses to replenish. Pope (490cc Norton) tours down off the Mountain with weak brakes, but continues after a pit stop. JH White (Norton) and F Vaasen (Norton) give the crowd at the Craig more than a thrill, for they all but collide. generate super wobbles, straighten out miraculously, and proceed at speed. Two men are missing and unreported—Ruhrschneck (346cc NSU) and Reid (BMW), near Kirkmichael and the Bungalow respectively. The German's trouble proves, after a search by travelling marshals, to be purely mechanical, but Reid finds a spectator on the road near Keppel Gate, comes off in trying to miss him and suffers a broken arm. There are four retirements on the board at this stage, but the leading dozen are giving a fine display of reliability at ultra-high speeds. West has shaken off Stanley, Archer has caught Lockett, and Galway has profited by Pope's brakes; otherwise the positions remain unchanged. For Stanley it is clearly a case of 'now or never'. If he meekly consents to be headed by over a minute at this early stage, it is only because he can't help it.



"A fine panorama of the mountain road between the 33rd milestone and Keppel Gate which reveals the fascination of watching the racing on this section of the famous TT course. WF Rusk on the AJS 'blown four' is seen leading WT Tiffen (Velocette)."

He is due to pick up fuel, and never did the massed thousands on the stands await a star so eagerly. It is a case of 'thumbs down' for Britain, barring accidents. Stanley streaks with silent engine to his pit after a 25min 31sec lap. Evidently all his horses were already on the gallop. Apparently the wind is deceptive—it must be stopping them in the hinterland. Worse still, he has an awful job to get going again. He makes two vain attempts to restart, and the third attempt is touch and go, the whole business visibly taking a lot out of him. Frith is pretty punctual, but has lost more ground to Stanley. Apparently the old Norton speed isn't on tap to-day, for 'Crasher' is also slow, and

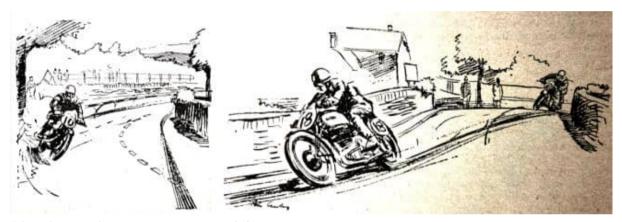
Daniell cannot get moving at all—as Nortons count moving. Or, more likely, all the field are being wind-stopped, and the BMW men with their huge reserve of power feel it less than the unblown singles. West and Meier are due to fill up on this round. Both are deft and workmanlike. Jock West is 15 seconds ahead of Stanley now, and Meier has stretched his lead over Stanley to 110 seconds. His lap time is 25min 4sec—identical with his standing-start opening, and 27sec faster than Woods' last. The prophets who thought he was likely to ride rather wildly are confounded, for reports round the course state that he and West are obviously both faster and steadier than anybody else. This is specially emphasised in reports from Bray Hill, where even the stars look as if they were taking risks. Germany first and second is a probable and ominous reading of the race. CF Brett (348cc Velocette) retires with big-end trouble at Ballacraine. The leading dozen persevere with their astounding exhibition of how to lap in formation at 'eighty' or more, except that Tyrell Smith on the solitary 500cc Excelsior entry displaces Rusk. The next lap covers the half-distance. Unless the proverbial Manx kaleidoscope starts its old devilish juggling again, or a host of retirements occurs, radical variations seem improbable. Nor does a single spectator desire that misfortune should overtake the BMW champions. Germany has had more than her share of disappointment and disaster this week already, and a smashing win would be no more than they deserve. Two minor features of interest are the good showing of the pair of AJS four-cylinders, which may well prove formidable when fully matured by another year of intensive culture; and the gallant efforts of the bevy of Juniors—mostly Velocettes—to keep up with their big opponents. Mellors is riding very consistently, and a speed of 84mph or so must seem child's play to Archer. Cann is very fast and could probably use a scrap more speed if his Guzzi had it. Ginger Wood is obviously in the same boat—he is an enthusiast who always looks as if he were urging his mount on horse-fashion. Galway is earning new laurels for South Africa, as Mussett, lower down the list on a 350, is doing for Australia. Presently the leaders begin to clock-in. Poor Woods has been slowed by a pit stop plus an obstinate restart, and can register nothing better than a 26min 53sec lap. This allows Frith's Norton to steal nearly half a minute ahead of him. The grim truth now brook's no denial. Whether a deceptive wind is to blame or not, the crack British engines are a whole lot slower on the day than they were under apparently similar weather conditions in 1938; not one of them can nourish the dreamiest hope of hustling the two BMW aces. As the race has gone, Jock West, never accounted an absolute topnotcher on any-thing but a BMW, would look evert inch a winner if Meier were not in front of him. Here he comes, and as usual the aggressive reverberating bellow of his engine betrays no hint of weariness. Frith has lapped in 25min 49sec, and Jock



"Jock West (BMW) beats the camera as he uses all the road in a long sweep round Hillberry."

in 25min 19sec Meier, including a pit-stop, registers 25min 46sec—the Britons are being relentlessly ridden down, and Woods is now practically three whole minutes astern. Jock is 81sec ahead of Frith. Neither British ace can possibly have enough in the bag to pull down the BMW pair over the concluding laps. Behind the leaders, Archer momentarily or permanently catches Mellors, and Galways slips past Tyrell Smith; but the 'formation' are still keeping station most marvellously. Until Archer caught Mellors the same six numbers had filled a the official 'continuous-leader' board from the start. ER Thomas (495cc Velocette) changes a plug at his pit, and bids the attendant keep another plug handy. Daniell concludes a trip which must have been a grievous disappointment to him by retiring at the Gooseneck, where he sits to watch a few laps for a change. Ruhrschneck's early disappearance proves to be engine trouble. Bodmer (NSU), despite his colossal 'camel' tank runs out of fuel—was the blower too efficient? Lampinen, the Finnish champion, tours in from Hillberry. Menders (349cc Excelsior) relinquishes the race high up on Snaefell with engine trouble; and Craine, the Manx hero, finds his fuel tank bone-dry on Creg Willeys. A race of this type is apt to engender a somewhat ghoulish atmosphere. Excitement is the life breath of racing, and we know all too well there can he no dramatic climax to this Senior unless both BMW machines have a spill or a stoppage. Not one sportsman desires such a culmination; but meanwhile their relentless mastery denies us our expected excitement, for we can only sit back and admire two super machines being magnificently handled; and the speed is such that an individual can only snatch seven brief glimpses of them during the entire race. A sense of the inevitable is poor exchange for thrills. Back comes Stanley in 25min

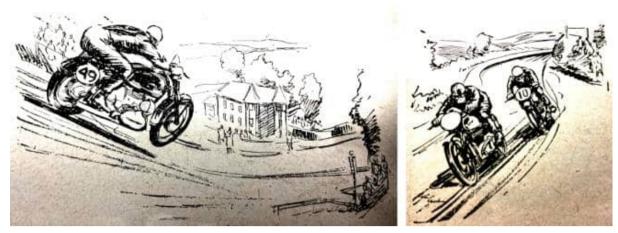
19sec. Nothing but a string of 24-minute laps could help you now, Stanley! All it does is to wash out that pit stop loss, and shunt him back in front of Frith, who can do no better than 26min 19sec. West roars through in 26min 13sec and Meier needs some fuel. He has lapped in 25min 14sec and now heads Stanley by 3min 12sec and Jock West by 2min 7sec. In the 1938 Senior Daniell was almost precisely as fast as Meier is to-day. Woods and Frith were then unpleasantly close on Daniell's tail; yet today all the British cracks look almost outclassed, so hopeless does their task appear. J Lockett (499cc Norton), who has made such a name for himself this year and was lying eighth, stops at Ballaugh, obviously in high and pardonable dudgeon, for he refuses at first to sign a retirement form; later he complies obediently. GH Hayden (348cc Velocette) drops out at the pits with engine trouble, as does Vaasen. F Anderson (DKW) passes the Craig with his right-hand exhaust pipe trailing nastily, and poor



"Oh, Stanley! Even the master misjudges and has to take to the grass at Braddan Bridge." (Right) "An impression of Ginger Wood (Norton) and Maurice Cann (Guzzi) at Braddan Bridge during a scrap which lasted for several laps."

Mussett, after the long journey from Australia, is denied a replica by engine trouble at the Bungalow, but he can be solaced by the reflection that he has thoroughly proved his mettle, and earned credit for his country. The moving finger writes. The Island has accustomed us to surprises, but they are apparently being postponed till Lap 7 to-day. Stanley would look to be shifting if we hadn't seen the BMW, but a 25min 29sec lap is the best he can do. Frith is a fraction the faster of the pair, but is still fourth. Jock West keeps his distance from them comfortably, as does Meier, despite a pit stop. The scoreboard is very late with times hereabouts, Frith's figures not being posted until he has practically reached Kirkmichael. Of course it doesn't matter particularly, as eye, ear and dials sufficed to inform us all that the BMW mastery was well maintained. West's exhaust seemed almost to shake the grandstand as he tore past, well down to it. Both his engine and Meier's sounded as crisp and threatening as on the first lap. Nothing but sheer catastrophe could now rob the BMWs of a thoroughly convincing victory. Tyrell Smith made a long halt about this time somewhere between Kirkmichael and Sulby—it looked like a final halt, although his retirement was not announced. And MD Whitworth, who has had a most successful week, actually forced his cheeky little Junior Velocette

into a vacant place thus created in the tail of the 'formation'. 'All over bar shouting' was the universal impression as the field entered upon their final circuit. Usually we half expect some kind of crack-up in the concluding stages of a TT, but not so to-day. Meier bellowed his raucous way round in 25min 31sec without the ghost of a check. Without the aid of a record lap he established the fastest Senior time ever accomplished, beating the Norton's 1938 figures by 31 seconds. Though his consistency and reliability had stripped the race of thrills, we all rose to yell our congratulations. He came to the microphone and made a short speech in German, which Baron von Falkenhayn translated to us. The German banner was promptly hung over No 49 on the scoreboard, plus the usual laurel wreath. Jock West, on the second BMW, was an unassailable second, 2min 20sec behind Meier. Frith contrived to pip Woods by seconds for third place; but JH White was well astern of Woods. The list of finishers tells the rest of the story. We rejoice in the German victory, for more reasons than one. It cannot console them for the death of that fine sportsman, Karl Gall but defeat on the top of mourning would indeed have been hard to bear [Gall crashed on the first lap of evening practice while trying to overtake Norton rider Freddie Frith on the approach to Ballaugh Bridge; he died in hospital—Ed]. For ourselves we must say as Kipling said after the Boer War—'We have had the hell of a licking; it will do us a world of good.' Subject to confirmation of the respective wind forces in 1938 and 1939, it looks as if unblown singles can be set an impossible task by blown multis; and we must look forward confidently to seeing British firms develop the more advanced design. RESULTS: G Meier (494cc BMW), 89.38mph; 2, JM West (494cc BMW); 3. FL Frith (499cc Norton); 4, Stanley Woods (495cc Velocette); 5, JH White (499cc Norton); 6, LJ Archer (495cc Velocette); 7, EA Mellors (495cc Velocette); 8, S Wood (499cc Norton); 9, M Cann (496cc Guzzi); 10, JC Galway (499cc Norton); 11, WF Rusk (498cc AJS); 12, MD Whitworth (348cc Velocette); 13, AR Foster (498cc AJS); 14, JE Little (348cc Velocette); 15, ER Thomas (495cc Velocette); 16, HC Lamacraft (348cc Velocette); 17, ES Oliver (348cc Velocette); 18, NB Pope (499cc Norton); 19, JW Beevers (490cc Norton); 20, N Croft (490cc Norton); 21, G Newman (348cc Velocette); 22, FW Fry (348cc Velocette); 23, WT Tiffen Jnr (348cc Velocette); 24, N Christmas (348cc Velocette); 25, TK Boardman (490cc Norton); 26, HB Myers (490cc Norton); 27, SM Miller (348cc Velocette); 28, F Anderson (346cc DKW); 29, H Hartley (499cc Rudge); 30, RJ Weston (490cc Norton). First-class Replica winners: Numbers 1-13 inclusive. Second-class Replica winners: Numbers 14-27 inclusive. Newcomers' prize: G Newman (348cc Velocette). The Motor Cycle Visitors Cup: G Meier (494cc BMW), Germany. Manufacturers' Team Award: Velocette (Stanley Woods, LJ Archer, EA Mellors). Club Team Award: Derby and District MC—MD Whitworth (348cc Velocette), Stanley Woods (495cc Velocette), EA Mellors (495cc Velocette)."



"The German rider G Meier (BMW) now holds the record for the fastest descent of Bray Hill!" (Right) "After starting tenth Stanley Woods (Velocette) catches Whitworth (Junior Velocette) on the second lap to lead the field at Union Mills."

"INTERVIEWING A VERY HAPPY German who does not speak a word of English immediately after he has won the most famous road race in the world is not the easiest of tasks, and Meier was much too excited to want to talk seriously. He was as fresh as the proverbial daisy when he came in at the end of the ride and he seemed to be in no hurry to have a wash or get out of his leathers. Later it was learned that Meier was laughingly grumbling at his team manager for giving him the 'slow down' signal throughout the race. Meier's remark was that he had come over here to race, and as it turned out he had had a most comfortable ride. The first thing Jock West said to me when I congratulated him in the paddock was: 'How did you get back from Glen Helen so quickly?' I had been watching the race on that aide of the course and twice Jock had seen me, and once he almost waved! So I can vouch for the truth that he had a really easy ride. He said: 'I'm almost ashamed; I did not even have one rear-wheel slide.' He, too, was very fit at the finish and fresh enough to examine the comparative wear on the rear tyres of his own and Meier's machine. Freddy Frith's achievement in getting his Norton home in third place was really magnificent, for on the third lap he lost the nearside footrest and for the rest of the race had to use the rear rest, which is fitted for use on the very fast stretches of the course only. It can be imagined what a handicap this must have been, particularly as the missing rest was on the brake pedal side. Other than this, he said, the race had been without real incident—the machine seemed to improve as the race progressed and he thought that it was definitely producing more power on the last three laps. "



"This

remarkable picture of Stanley Woods on his sixth lap in the Senior TT was taken by a reader. He writes: 'As Stanley was passing, two seagulls flew rather low right in his path. Stanley actually ducked and missed one bird by probably less than a foot.'"

"AS USUAL, THE SENIOR machines finished in first-class order, though the palm must be awarded to Meier's BMW, which finished like a new machine except, of course, for the rear tyre. Even this part, however, was in good condition—about as good as the rear tyre of Frith's Norton and possibly rather better than that of West's BMW. Accessories on all machines were perfect, and particular mention must be made of the admirable state of the chains on the Norton. There was plenty of adjustment left on the brakes and clutches of all three machines. Incidentally, the BMW brakes are intercoupled in a very neat manner. No praise can be too high for the condition of Meier's BMW—it was clean externally and internally. The flat-top pistons have three rings above the gudgeon pin and a scraper ring below. The sides are heavily relieved at the gudgeon-pin bosses and

very slightly relieved all the way round at the same level. Pistons And rings were in perfect condition, as were the hemispherical heads and the valves. The ohc gear was clean and cool and the cylinder bores perfect. The light-alloy heads are held down by eight long bolts. The engine-gear-and-supercharger unit is outstandingly neat and the huge crankshaft with its short polished-steel connecting rods looked cool and clean. Jock West's machine was similar and to all appearances was equally good as regards condition. It is said that the BMWs can race on quite soft plugs, but West, at any rate, had not taken any chances in that direction. Frith's Norton was identical with last year's racing model and finished in very good condition throughout. There was nothing broken and nothing that looked in the least hot and bothered. The exhaust valve had been warm, but was no more affected than would be expected in a 500cc single after a really tough race."



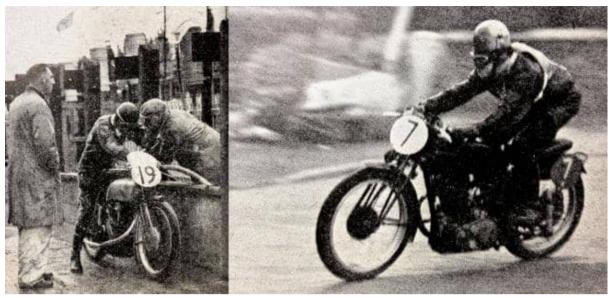
"THE PROPHETS HAD ANTICIPATED a fierce struggle at record speed with four DKW machines, two Guzzis and the Benelli fighting out the issue, since Continental markets develop the 250cc engine far more intensively than our own. But only two of the invaders combined real speed with reliability, and the weather, which deteriorated from poor to vile, effectively limited the speed. EA Mellors (Benelli) assumed the lead on Lap 2, was never again headed, and scored a very popular victory in 3hr 33min 26sec, his speed of 74.26mph being naturally much lower than Kluge's in 1938 (78.48mph). E Kluge, slowed by a little plug trouble, was second in 3hr 37min 11sec (72.97mph), and HG Tyrrell Smith third on his Excelsior in 3hr 40min 23sec (71.91mph). Thirteen of the 26 starters completed the course. The first seven men earned first-class replicas, and the remaining six qualified for second-class replicas. No records were established, the fastest lap being accomplished by S Woods (Guzzi) on his third circuit, in 28min 58sec (78.16mph). Kluge's 1938 record lap at 80.35mph therefore remains unbeaten. No trade team finished complete, and the Club team prize was awarded to the Derby 'A' team, consisting of Mellors (Benelli), Thomas (DKW), and Hartley (Rudge). Stanley Woods (Guzzi), who was a warm favourite, stood second, eight seconds behind his team-mate, Omobono Tenni, after one lap. On the second lap Woods sustained





"Winning form. EA Mellors (Benelli) looks the perfect master of his machine as he prepares to tackle Bray Hill." (Right) "Second man home, E Kluge hangs on grimly to his DKW as he hits the bumps of Bray Hill."

a six-minute stop. Tenni retired on Lap 3, and Woods made a hectic attempt to recover lost ground; he fought his way back to third place on Lap 4, and retired with engine trouble on Lap 5. Everybody expected to enjoy the 1939 Lightweight. 'It lies,' they said, 'between half a dozen foreign machines, all of which have the legs of ours. We don't mind particularly which of them wins. The pace is sure to be a cracker. Let's sit back and enjoy the fun!' But the weather had something to say. When a small island contains a tall mountain, and that mountain pokes its head into the clouds which haunt the Atlantic, the mountain has only to spike one decent-sized cloud to drench the whole island. At breakfast-time Mona was bathed in delicious sunshine. By ten o'clock Snaefell was dragging downwards a huge swathe of grey-bosomed clouds. At eleven it wasn't exactly raining, and it wasn't exactly misty, but the outlook was grim. Before long the tarmac glistened without being slimy; and the visibility was just a TT rider's bugbear, because the clouds kept shifting—you would find a corner clear on Lap 1, and blotted out at 25 yards on Lap 2. Long before the finish everything was soaking, and soon after the finish foghorns were going hard along the coast, and steamers were nosing out of harbour like grannies trying to cross Piccadilly in the theatre rush.



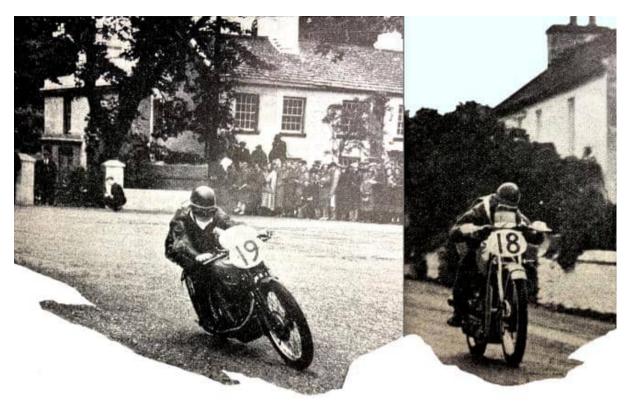
"Where seconds count. LJ Archer (New Imperial) stops for fuel and receives a few words of advice from Archer père." (Right) "Third man home and the first all-British combination to finish. HG Tyrell Smith (Excelsior) flat-out along the Glencrutchery road. And judging by his position he has just discovered an unsuspected bump!"

So high speeds were not to be thought of, which was perhaps just as well, for even at a slowish gait Mellors' Benelli alone of the foreign machines was capable of absolute reliability, and if the expected records had materialised, finishers might have been very few. One or two of the foreign designers seem to be pressing these tiny engines too far. In post discussions Signor Parodi's confidence made the Guzzis public favourites, though the DKW, with four machines, commanded respect, and many fancied the Benelli. The British fans had to decide whether to wish for Mellors' first TT victory, or Stanley Woods' 11th success. The Excelsiors—probably Tyrell Smith or 'Crasher' White—were identified as England's faint hope. When 26 exhausts warmed the damp air at 10.30am, the absentees were Jock West (New Imperial), CB Taylor (CBT), the third Guzzi, JC Galway (Excelsior), and poor Simo, still in Ramsey Hospital. The preliminaries passed off normally. Somebody had found or replaced the Nazi banner which was lost, stolen or strayed on Monday, so the parade could be held 'with flags'. It was now technically, though not practically, 'raining', the fall being about one drop per square yard per minute; but plenty more was to come. Visibility was good, and the road nowhere really wet, though a few patches in the Square at Ramsey were broomed away. The actual start produced no incidents, except that the flagman elected to hoist the



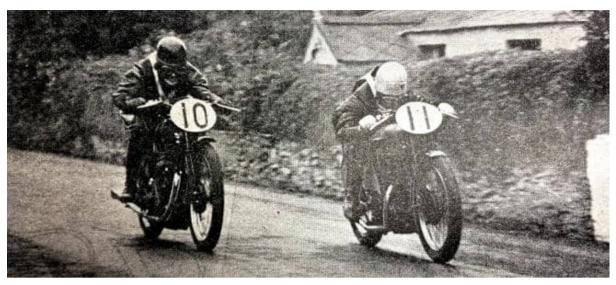
"All out for his first TT win—EA Mellors (Benelli) caught by the camera at Ballacraine. His riding throughout the race was notable for its steadiness and general brilliance."

Union Jack for ER Thomas on the DKW, and Kluge kept cutting out every hundred yards—presumably to jerk the oil about When the last man had left, we all stood half a minute in silence as a tribute to that fine rider and sportsman Karl Gall, whose death overnight had brought every flag on the Island to half-mast. As always, the clocks were scanned anxiously on Lap 1 to furnish hints of current form. Tenni (Guzzi), starting No 2, soon overhauled Mellors (Benelli), who started No 1. Possibly the Guzzi's pace startled Mellors; at any rate, he didn't let Tenni gain much more ground over the second half of the lap. Tyrell Smith, Martin and Sorensen, all on Excelsiors, soon picked up a place or two. Thomas and Wünsche, both on DKWs, ominously had to change plugs early on. Tattersall lost a bolt from his gear-change at Ballacraine, but wired it up. Fleischmann, accounted by many one of the best all-rounders in Europe, surprisingly proved two whole minutes slower than Tenni. The other stars—Stanley Woods (Guzzi) and Kluge (DKW)—started in the tail of the roaring pack, but when they eventually arrived. Woods with his never-failing judgment was on Tenni's tail, whereas Kluge was only fourth where was his speed of yesteryear? With Fleischmann fifth, Tyrell Smith (Excelsior) was the sole Briton on a British bike in the first six but six others came streaking along behind him, including three veteran experts in White, Archer and Manders, and three rather unexpected dashers in Graham, Martin and Evans. Conclusion—the Guzzis have the legs of the field if they can stand up to their blowers for seven laps. Meanwhile, visibility at the Bungalow had shrunk to 50 yards, and fog was creeping right down to the Craig. Sorensen, feeling the effects of his fall on Monday, retired at the pits after one lap. As usual with these wee, overstressed engines, excitement came early.



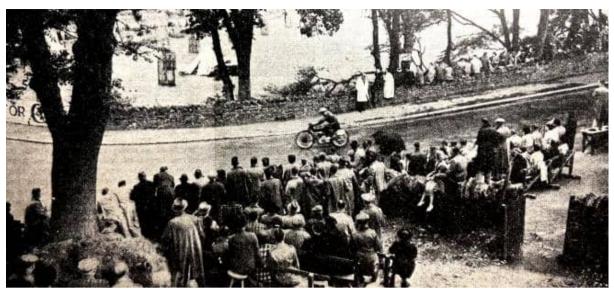
"LJ Archer (New Imperial) sweeps through Ballaugh in characteristic style." (Right) "Crouched well down behind his tiny wind-screen, H Fleischmann (DKW) yowls along Glen Vine."

The clocks signalled what was either a furious spurt by Mellors or a slight sulking on the part of Tenni's engine; and soon after we watched in the spirit Kluge streak past Woods near Kirkmichael. 'Woods is out!' was the cry; but all too late his pointer came to life again. Meanwhile, Mellors came round hot blast, having snatched no fewer than 76sec from Tenni. Woods, who had evidently sustained a delay of six minutes or so, dropped to eighth, and so boosted five men up one place apiece. Pike (Rudge) and Miller (CTS) enter the leading dozen. 'Crasher' White goes out with a broken spring. Fleischmann halts south of Sulby for a long time. 'Ginger' Wood (Rudge) and ER Evans (OK Supreme) resume after a spot of tinkering. McCredie (Excelsior) falls at Governor's Bridge, but carries on, though Dickwell (Benelli) retires after a similar experience at the same spot. There were fun and games at the foot of Bray on this lap when a gas main blew its lid off, nearly hitting Tattersall, and the fire engine and other officials got rather in the way for a few moments. Two men out—there'll be others yet! Graham, Martin, Manders and Archer continue their good work. The next sensation consists of Tenni calmly ringing-up Signor Parodi from Ballaugh—surely a TT novelty? Apparently he sought permission to retire, which may be etiquette in dictatorial states. Anyhow, retire he did. And the Guzzi stock sagged heavily, though Woods was evidently out for blood, for he



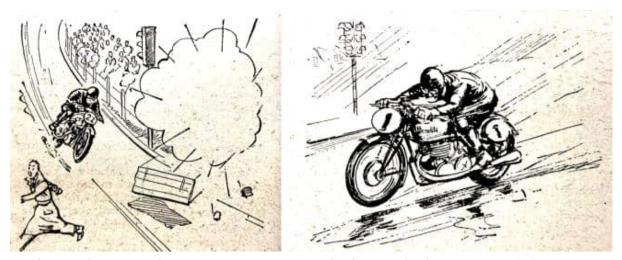
"Close in Numbers and close in fact! RL Graham (CTS) has a bare lead over SA Sorensen (Excelsior) at Glen Vine."

terrified the crowd at Ballacraine by over-shooting that ugly corner, swirling round nonstop in the roadway, and regaining the course. Mellors makes his first pit stop after three laps, and worries himself and us by needing three attempts to restart; this is his fastest lap to date, but owing to the worsening conditions is 61sec outside record. Woods registers what proved to be the fastest lap of the day in 28min 58sec (78.16mph). Stanley knows his Lightweight—there is usually a massacre of the fast men in the later laps, and a dare-devil with a good engine can make up even a six-minute stop. Kluge is punctual and fast, but can't catch the Benelli. The Fleischmann mystery deepens—he has vanished into thin air short of Sulby and neither riders nor marshals can discover a trace of him. Police are instructed to hunt for a mournful wanderer, who can speak no English. Miller fixes his damper at the pits. 'Ginger' Wood warns the stewards that if he gets lost, want of plugs will be responsible. Hartley (Rudge) enters the leading dozen. By now the rain is quite heavy, the roads are thoroughly wet, and though the fog waves like a curtain in a draught, visibility in places is no more than 25 yards. The Benelli continues to transport 12 stone of Mellors at over 75mph. Tyrell Smith, encouraged by the failure of so many foreign machines, conceives hopes of victory, till he nearly takes the grass near the Bungalow, starts a heart-stopping wobble, but puts both feet down, regains control and dives onward. SM Miller (CTS) retires at Ballacraine with loose forks, and RL Pike (Rudge) changes a plug at the same place. Woods again overshoots Ballacraine—are his brakes



"In spite of the rain huge crowds gathered at the various vantage points. Here is a view of Quarter Bridge, with the spectators watching S 'Ginger' Wood (Rudge) tackle the tricky bend."

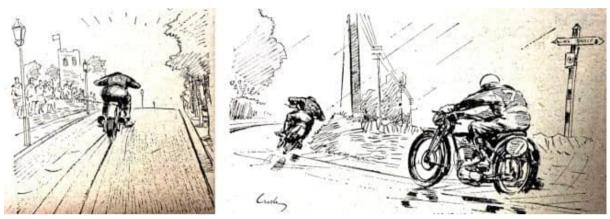
faulty? We can hardly believe he could misjudge a corner which he knows as well as his own fireside; he is reported to be riding fiendishly. He actually regains five places in three laps, and evidently means to re-catch Kluge. Meanwhile, the Fleischmann mystery is partly solved, for he trudges into Sulby; but how he got there unseen, nobody can guess. Thomas (DKW) tinkers at his pit. ER Evans has been missing for two laps, and is evidently out. R Pike (Rudge), after three good laps, grazes his arm in a spill at Governor's Bridge and calls it a day. Nine retirements so far. The focus at the moment is Stanley's evident resolution to catch Kluge; if he succeeds, Mellors on the Benelli must mind his step. Lap 5 brings an early sensation when the Guzzi resents Stanley's thrashing and decides near Crosby to motor no more to-day. The other leaders circle monotonously, Mellors drawing away slightly from Kluge, who stops again for fuel and clean goggles—goggles are a perpetual nuisance in this drizzly mist. Tyrell Smith cannot pick up time, but hangs on grimly. Wünsche, after a brief stop on the previous lap, shows his teeth by jumping up three places. Poor Archer drops out with engine trouble when lying seventh—no luck on Monday; no luck to-day; perhaps Friday will make amends? Hartley (Rudge) catches Thomas (DKW), and defections ahead admit W Pike (Rudge), 'Ginger' Wood (Rudge), and Lamacraft (Excelsior) into the first 12. RL Graham (CTS), whom no tipster fancied, is now riding fourth, with LGF Martin (Excelsior), another dark horse, only 20sec behind. Be it understood that neither the Rudges nor the Excelsiors are 'works' entries, and their plucky wrestle with the keenly organised invaders will appear in its true colours. The race is now definitely set.



"Noises off! A gas main explodes and catches fire just as Chris Tattersall (CTS) roars down Bray Hill—and 'safety first' is the motto of the officials." (Right) "It takes more than rain to damp the spirits of EA Mellors (Benelli) as he charges down Bray Hill well ahead of the field."

The intervals between the first half-dozen men are too wide for mere riding skill to alter their relative positions. Nothing but trouble or a spill can now affect the result. Slippery roads, varying visibility and wee engines limited thereby to between 68 and 75mph average provide no scope for bringing a hectic lap out of the bag. Safety-first must be the leaders' slogan; take no risks; make no mistakes; and if the bus sticks it, you will automatically finish where you are. Sharp to time Mellors flogs his red Benelli past us to start his final circuit. He is rock-steady lying flat down to it; his exhaust as crisp and clean as ever. His heart must surely palpitate a bit as he dreams of his first Trophy? Round come the others—Kluge, Tyrell Smith—but where is Graham? Out at Union Mills with gear box trouble; when running fourth within arm's length of fame and glory—cruel luck! Martin gratefully steps into his shoes. HB Myers (Excelsior) retires at the pits. Each successive signal station reports Mellors fast and steady. Nobody can catch him if. he does not stop, for he has four golden, glorious minutes in hand. And he gets the nonstop he so richly deserves. Safely he crests the Mountain summit, and doubtless knows all about his long, comfortable lead. No, he isn't flogging his engine—he's lapping cautiously at about 74mph. He is at the Craig—here he comes, modestly flushed by an immensely popular win, and goes to the microphone to express his thanks for a tremendous ovation. Kluge, who started 14 minutes later, is still far away, but he, too, is trouble-free, and so eludes the dogged challenge of Tyrell Smith. Then LG Martin just pips Wünsche for fourth place. Behind them three Excelsiors, three Rudges, a CTS and a DKW complete the select band of men who have proudly averaged express train speeds for hours over slippery roads through a blanket of mist." RESULTS. 1, EA Mellors (246 Benelli); 2, E Kluge (248cc DKW); 3, HG Tyrell Smith (249cc Excelsior); 4, LG Martin (249cc Excelsior); 5, S Wünsche (248cc DKW); 6, CH Manders (249cc Excelsior); 7, H Hartley (249cc Rudge); 8, ER Thomas (248cc DKW); 9, S Wood (249cc Rudge); 10, C

Tattersall (249cc CTS); 11, WHS Pike (249cc Rudge); 12, HC Lamacraft (249cc Excelsior); 13, J McCredie (249cc Excelsior); 14, HB Myers (249cc Excelsior); 15, RL Graham (249cc CTS); 16, Stanley Woods (249cc Guzzi); 17, LJ Archer (246cc New Imperial); 18, RH Pike (249cc Rudge). Replica winners: The first seven are awarded silver replicas and Nos 8-13 bronze replicas. Manufacturer's Team Award: No team finished complete. Club Team Award: Derby & District MC 'A': EA Mellors, ER Thomas, H Hartley. Newcomers' Prize: WHS Pike (249cc Rudge)."



"Road-warming by Herr S Wünsche of the DKW concern. These fast two-strokes were easily the quickest off the mark and their riders were well down to it in a matter of yards." (Right) "Lightweights duel in the rain. An artist's impression of HG Tyrell Smith (Excelsior) chasing WHS Pike (Rudge) at Hillberry."

"IT IS USUAL TO FIND the Lightweight machines rather burned-up, but this year was an exception. Every visible part of every one of the first three machines was in excellent condition. This applies also to tyres, chains, clutch and brake adjustments and valve springs. The winning Benelli is an altogether charming little machine with valves set at a wide angle. Visitors were not encouraged to examine the inside, but so far as could be seen everything was in good order. Externally it was clean and showed no signs of its strenuous race. The carburettor was very large for a 250cc engine. The DKW—a trifle dirty behind the seat tube—was in perfect order. It was fitted with a 12mm Bosch plug and, unlike the 350cc model, with an aluminium-bronze head. The separate pump cylinder had a rotary inlet valve. Everything was as perfect as could be. Tyrell Smith's Excelsior was also in first-class condition. The plug was just right and neither of the valves showed signs of over-heating. The piston and Y-alloy head were excellent. Undoubtedly the wet roads saved the tyres of all three from scrubbing. Rarely have tyres been in better condition at the end of a race."

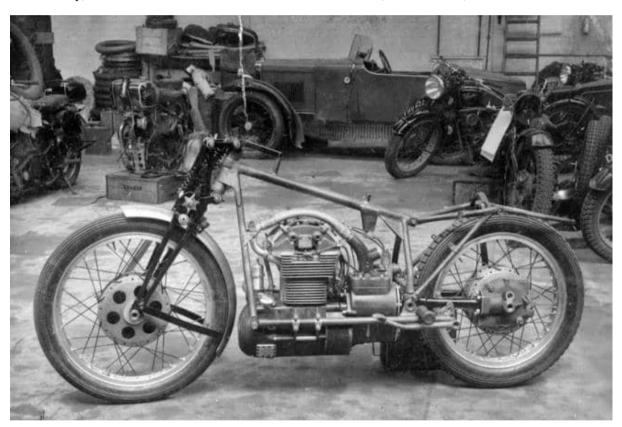
"THE FIRST THREE MEN home in the Lightweight Race all agreed that it had been one of the worst races for weather in which they had ridden. Their faces were nearly raw with the rain, which Mellors said, had on several occasions stung like needles, while their hands were almost numb and blue with cold. Mellors was full of admiration for his machine, which had never given him a moment's trouble, either in practice or during the

race, and he said he knew he had an excellent chance of winning as far back as last September, when he arranged to ride the Benelli. He gave a good indication of the Benelli's speed when he said that after Tenni, on the supercharged Guzzi, had passed him at the Gooseneck on the first lap he was able to overtake him again before the Bungalow, and although Tenni repassed he was still on his tail all the way to Braddan Bridge. Mellors had no 'incidents'. 'Not even one skid in spite of the very small tyres,' he said. 'That's the secret.' he added, pointing to the cross-cuts on the tread. Kluge had not had such an easy race. At the end all he wanted was a hot bath and he was rushed away to his hotel almost as soon as he got off the bike. After the prize-giving he was able to talk about the ride, which, he said, was the worst he had ever experienced. The weather conditions were bad for the machine, but he only had to change one plug. This was tight in the cylinder head and he had to unscrew the plug with a spanner all the way—one can imagine how Kluge felt as he was unscrewing that plug! So far as the ride was concerned, he found that the changing weather made things very awkward, because at one spot the road would be dry and at the next it would be greasy, so that great concentration was required everywhere if the highest speed with safety was to be maintained. Tyrell Smith rode three fine races and his best was probably the Lightweight. He seemed quite fresh at the finish, even though he was wet through to the skin and his face was almost raw with the rain. He laughed about the foul weather and was more interested in an incident on the fourth lap when a bird flew out of the hedge on the Mountain road and caught up between the handlebar and the front brake lever. He was approaching the Bungalow and, of course, the front brake was rendered practically useless. He had to take to the gutter for about twenty yards and he admitted that for a fraction of a second he thought he would come off heavily. Apart from that he had a trouble-free run and the machine ran perfectly throughout."

"NOT SINCE THE EARLY DAYS have the spoils in the TT been anything like so widely divided as was the case last week. Once upon a time the challenge came from the United States of America. Last week it was from Germany and Italy, and as all know, Germany won the Senior TT, Great Britain the Junior and Italy the Lightweight. Never before have three nations each secured a trophy. We offer our hearty congratulations to Georg Meier and the makers of his supercharged transverse-twin BMW, to Veloce, and Stanley Woods for their success in the Junior Race, and to the manufacturers of the Benelli which EA Mellors rode so magnificently to victory in the Lightweight event. These machines fully deserved their success. Although specifically designed for racing, none is in any sense a racing freak. That the BMW factory succeeded this year caused widespread pleasure, for this is a concern that has striven for years in developing the supercharged transverse-twin and in the Isle of Man has been dogged with ill-luck, including, unhappily, the death of its famous rider Karl Gall. Naturally these wins by foreign machines, more especially that of Meier in the Senior Race, are causing British manufacturers to take stock of the position. Naturally, too, there were many on the

evening of the race who remarked upon our constantly repeated statement that Britain must develop multi-cylinder engines—that multis and spring frames were essential if she was to retain her position in road racing. Racing has at long last caused the wholesale adoption of one feature for which we have been pressing so long. namely, spring frames."

"INTENSE DISAPPOINTMENT WAS FELT in the Island when Stanley Woods substituted the single-cylinder Velocette for the new supercharged twin in the Senior TT. I am glad to report, however, that the blown twin fulfils all expectations, and will be race-ripe in the very near future. Woods reports that it steers superbly. Cumbrous as the massive power unit looks when dismounted, it nevertheless permits of identically the same riding position as the single-cylinder racer, and was one of the fastest 500cc models in the Island, being capable of about 130mph. The points still requiring attention are purely subsidiary, and relate to such matters as transmission, lubrication, and the like."—Ixion.



The blown Velo twin (known to history as the Roarer) looks right at home in Velocette's TT workshop.



Stanley Woods and the Roarer—could this combination have beaten Georg Meier and the blown Beemer in the 1940 Senior? Damn right they could!

"IN SOME QUARTERS there is the suggestion that the idea of a Roadster Race, which is being considered for inclusion in next year's series of TT Races, novel (if not copyright!). How novel it is can be gathered from the following which the Editor of *The Motor Cycle* wrote 11 years ago (vide our issue of June 21st, 1928), and has been mooted almost ever since: 'The question of substituting a high-speed reliability trial for the Lightweight TT offers big possibilities. Machines of all capacities from 175 to 1,000cc would be eligible to compete, and the regulations i that naturally suggest themselves are in the main those under which the forthcoming RAC car TT in Ireland is to be held. In the case of this car race, each vehicle entered must have been fully described in a catalogue published more than six months prior to the date of the race, and be scheduled for production, constructed, or delivered to customers in sufficient quantity to satisfy the organisers that the type is, or will be a bona-fide commercial model. Also, the cars have to be in full touring trim, and no changes of any major character to the engine or chassis are permitted. Regulations of a similar nature could be framed and enforced with comparative eases."

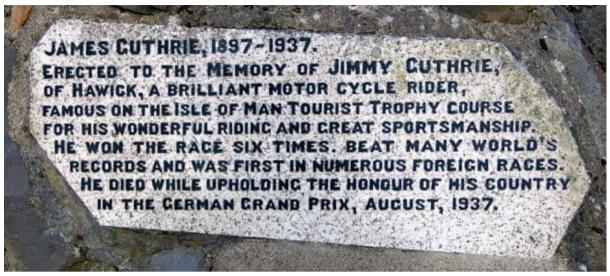
"WITH A SIMPLICITY that was most moving, the memorial to Jimmy Guthrie was unveiled last Friday by His. Excellency the Lieutenant-Governor of the Isle of Man, Vice-

Admiral the Hon WS Leveson-Gower, CB, DS0. The cairn is at the Cutting, on the mountain road some 2½ miles above Ramsey, and marks the point at which Guthrie retired in his last TT. The site, probably as magnificent as any that could be chosen, is also fitting because on a clear day it is possible to see Scotland, Guthrie's home country, as well as England and Ireland. A large crowd had gathered for the ceremony, some clustered in the road—the road over which Guthrie raced—and others on the hillside opposite. Following a trumpet call Mr. Geoffrev Smith, MBE, chairman of the Guthrie Memorial Fund Committee, gave a brief verbal picture of Guthrie, the man: his quiet unassuming manner, his skill, and his achievements. Mr Smith also described how the Fund had enabled the Committee to endow beds at Noble's Hospital, Douglas, and Guthrie's home town, Hawick, as well as provide a British Prestige Trophy and the Memorial cairn. He then called upon His Excellency the Lieutenant-Governor, who paid tribute to Guthrie and the magnificent way in which he had upheld British prestige; and then unveiled the tablet. After prayers by Rev EH Staining, and a final trumpet call, the German representatives, Baron von Falkenhayn, and Herr Kraus, stepped forward and laid a wreath on the memorial—a much appreciated action by those in whose land Guthrie met his death. Baron von Falkenhayn said how glad he and his comrades were to be able to pay tribute to the greatest motor cycle racing man the world had known. On the following day, immediately after the last man had started in the Senior TT, the Chairman of the Memorial Committee handed over a cheque for £500 to Mr. Wm A Fyffe, the Chairman of Noble's Hospital."



"The unveiling of the cairn in memory of Jimmy Guthrie by Vice-Admiral the Hon WS Leveson-Gower, CB, DS0, Lieut-Governor of the Isle of Man. On the left are Mr Geoffrey

Smith, MBE, chairman of the Guthrie Memorial Fund Committee, and the Rev EH Stenning, and on the right, Mr TW Loughborough, honorary treasurer."



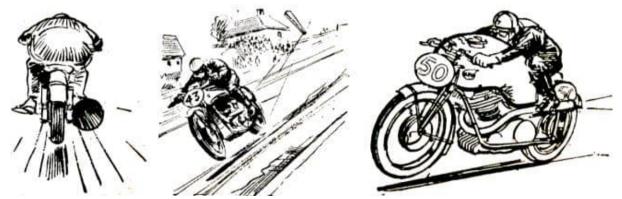
"James Guthrie 1897–1937 Erected to the memory of Jimmy Guthrie, of Hawick, a brilliant motor cycle rider, famous on the Isle of Man Tourist Trophy Course for his wonderful riding and great sportsmanship. He won the race six times, beat many world's records and was first in numerous foreign races. He died while upholding the honour of his country in the German Grand Prix, August, 1937."

# T.T. TRIFLES

Odds and Ends of News and Gossip from the Island

"THE 1939 TT was truly International both in representation and in the final result. Britain won the Junior, Italy the Lightweight, and Germany the Senior • • • His Excellency the Governor must have addressed the biggest crowd ever assembled for a TT prizegiving when he attended the Villa Marina following the Senior Race • • • BMWs have invited Jock and Mrs West to Munich in celebration of Meier and West finishing first and second in the Senior • • • Meier's rank in the German Army at the time of the TT was that of sergeant-major; it was said that on his arrival back in Germany he would find himself a commissioned officer with the rank of lieutenant • • • Some competitors complained rather bitterly of spectators wandering on the course; Kate's Cottage was mentioned as one of the worst points in this connection • • • In places the BMWs were doing 140mph. Incidentally, they seemed easily the steadiest machines on Bray Hill • • • Owing to the large number of riders in the Junior (61) several spectators seemed doubtful whether the last man would be off before No 1, Stanley Woods, came round. But even Stanley cannot yet achieve a 20-minute lap! • • • Mr Granville Bradshaw, designer of the 398cc transverse-twin ABC, the forerunner or the BMW, was an interested spectator of the Senior TT • • • Daniell's Senior engine cut-out completely on the first lap at the blind

bend above the 13th milestone—a very awkward place. Until then he was five seconds behind Meier on time. • • • At this bend only Frith and Woods appeared to be taking the turn at full bore—both men flat on the tank. • • • At the end of the Senior Race the movement of the rear springing of Maurice Cann'e Guzzi had increased so much that the shock absorber arm had worn a hole right through the exhaust pipe. • • • This year there were many complaints by local residents about the noise some of the machines made during the early-morning practice. • • • The weighing-out of the machines in readiness for the three races was a real weighing-out, for after a lapse of many years each machine was put on the scales and its weight duly registered. There was, unfortunately, a slight hitch in the arrangements, for one entrant refused to allow his two entries to be weighed. Quite naturally this caused something of a flutter in the dovecots, and there were many hurried conferences. It appears that there is no enforceable regulation to the effect that all machines mu/ be weighed—a point which many bels, may be corrected by next year. • • • Both Guzzi and Benelli machines carried spare hairpin valve springs. Tennis Guzzi had a special tool for effecting quick replacements, but changing a valve spring on a hot engine is no mean task. • • At least 20 former TT winners were in the Island last week. • • After winning Monday's race, Stanley Woods found himself a little hard of hearing. He was inclined to blame the DKWs, until someone pointed out that he had omitted to remove the cotton-wool plugs from his ears. • • • 'Ginger' Wood had an enormous arrow on the tank of his Rudge to remind him of the right-hand (or rather foot) brake. This right-foot brake was almost unique. • • • LJ Archer had bad luck in the Junior, for on the last lap he experienced gear-box trouble at Braddan and had to ride the rest of the way in bottom gear. • • • One famous rider filled up with hot oil before the race so that the engine was nicely warmed up for the preliminary canter and just right for a fast first lap. "



L-R: "A big exhaust for a big man. An impression of Harold Daniell and his Norton." "Not content with the fiendish yowl of his DKW, Fergus Anderson has to shed a megaphone and makes even more noise." "The biggest tank yet on Ruhrschneck's NSU—and he ran out of fuel too!"

"IT WAS LIKE OLD TIMES to encounter Granville Bradshaw at the TT. As ever, he has innumerable irons in the fire, with six engines under development. I begged him to

launch a modernised ABC for us, but he only looked sphinxlike. He recently sold a clever invention in the form of a woodscrew which cannot be removed when once inserted—if you think a moment, many desirable opportunities for such a screw may (or may not!) occur to you. When I crossed to the mainland one of the first people I met was WG McMinnies, the old Triumph exponent, who in his youth was quite one of the fiercest motor-cycling monomaniacs I have ever met. He lost his zest in the RFC during the war. He was about to sail to America with the Junior Car Club on the maiden voyage of the Mauretania. His mount was a Phantom III Rolls-Royce, if you please; and his codriver was HE Symons, of Cape-to-Cairo fame."—Ixion.

"IT IS SIGNIFICANT that the winning machine in the Senior TT was also the lightest. This interesting fact emerges from the list of weights issued by the ACU. The 500cc BMW ridden by Georg Meier weighed only some 302lb, which is lighter than any 350cc motor cycle we have road-tested over the past eighteen months, and is also lighter than quite a number of 250s. Here is a motor cycle capable of approximately 140mph, a speed nearly double that normally usable on the road, and fitted with a spring frame, a supercharger and a huge fuel tank. In addition, it has a crank-shaft, crankcase and transmission designed for a power output several times greater than that of the equivalent roadster. This machine was also adjudged one of the best road-holding motor cycles on the Isle of Man circuit. Facts, and these are facts, can cause a decided jolt to people's opinions. Over many years we have stressed the need for lighter motor cycles and have pointed out how weight handicaps performance by reducing acceleration, adversely affecting hill-climbing and increasing fuel consumption. Some maintained that low weight was undesirable; reduce the weight and road-holding would be poor. This view, we replied, was incorrect because given efficient rear springing which we said must and would be developed—there would be low weight plus firstclass road-holding. The two factors are inter-related, and the adoption of spring frames would enable designers to reduce weight as well as endow their machines with improved road-holding. Now there is undeniable proof of all this. The questions that arise are, first: 'How is it that a 140mph motor cycle has been made nearly 100lb lighter than equivalent (and very, very much slower) production models?' and, secondly: 'Can the knowledge be applied to touring machines?"

"WE BRITONS CROSSED to the Island this year in a state of foreboding. With the exception of the Velocettes, practically every British entry was backed only by an agent or a keen and more or less amateur individual. This state of affairs was due to one main factor—unwillingness to spend many thousands of pounds on developing the type of engine (supercharged multi-cylinder) with which the future of motor cycle racing is undeniably bound up. We knew the blown twin Velocette would not start; we knew that the four-cylinder AJS machines were neither 'race-ripe' nor out for blood; we knew that two German and two Italian teams were 'national', had the full power of great factories behind them, and could put up riders who rank as the supreme stars of their respective

nations and were quite capable of rounding the Manx circuit at speeds of winning calibre. It was on the cards that we should lose all three trophies. Well, things didn't turn out quite so badly as all that. Woods and Daniell maintained British prestige nobly in the Junior, though Fleischmann on the DKW gave them a rare run. Fleischmann does not know the Manx course inside-out yet, nor is his engine quite so developed as the 250cc of the same make; he will probably beat all unblown single-cylinders next year. In the Lightweight we were never in the hunt, and when the little Guzzis are right, our existing machines would have a struggle to squeeze one into the first six. But the Senior more than either of the lesser events chalked the writing on the wall. Woods and Frith rode splendidly; but our defeat was even more complete than it looks on paper, for the following reasons: Splendid rider as Meier is, Woods and Frith would lose him, if he were mounted on a replica of either of their machines; he does not know this long and difficult circuit as they know it. He and West were being given the 'steady' signal as soon as they clinched their lead. Meier won because he had such an enormous surplus of reserve speed over the Velocette and Norton that he could lose time on the really tricky and dangerous bits, and more than pick it up along the straights and in acceleration. West is something of a question mark. It is only when sitting on a BMW that he accomplishes the sensational. He may have reached full star class as the result of a season and a half on this ultra-fast machine; or he may still be well short of it, but he beat Woods and Frith by dint of the factor which enabled Meier to beat them. If we compare machine with machine, the BMW has oodles of power and speed in hand over the best of our unblown single-cylinders. In this class there are just two gleams of hope. First, that the blown twin Velocette will be ready for 1940, and should hold its own. Secondly, that the new four-cylinder AJS has, it seems, already captured that most elusive of all racing qualifications, high-speed reliability. Two entered the Senior. Neither compared in the vital feature of road-holding with a BMW, a Velocette, or a Norton. Both finished; and in spite of minor bothers their speeds were 80.65 and 79.57mph. This achievement indicates that with better luck and perfected road-holding, they should be formidable in 1940. Let it be clearly stated that these temporary eclipses imply no slur on British design or workmanship. Without finance, enterprise is impossible. As so often before in the field of motors we have allowed the foreigners to steal a march on us, to take a forward step a couple of years before we took it. Nobody can blame our factories. They receive no Government support or encouragement. Indeed, their task is rather hampered by the Government failure to build better roads; to free the little 'uns from vexatious and unnecessary restrictions; to reduce the horse-power tax, etc. If it were not for the export trade and questions of prestige, it is an open question whether it pays any British factory to race on the grand scale. It will soon become obvious that it will not pay to race on anything short of the grand scale. It is doubtful whether, in any case, it will pay British manufacturers to develop champion 250cc racers. Factories such as Veloce, Norton and Excelsior have a very thorny dilemma to solve in the near future, unless the Government supports them. For no matter how jealous factories like these

may he of national honour, they are fundamentally commercial concerns and cannot spend £20,000 on producing super racing machines unless they are going to get that money back plus dividends as the result of their victories."—Ixion.



"A glimpse of the busy scene at the start of the Senior Race. The rider who is heaving his machine into life is WT Tiffen Jnr (348cc Velocette), who averaged 76.21mph."

"FROM MY EXPERIENCE the best reply to Nitor's question on summer riding kit is the Barbour's International one-piece suit. The greatest drawback to one-piece suits is, I believe, the difficulty of getting them on and off, but I have no such trouble with my International—perhaps because I am not too lazy to remove my boots first. The suit was purchased early in May of last year, used right through the summer and found ideal. A zipp fastener allows the front to be opened or closed to the desired degree according to the weather conditions, and—what I consider to be its greatest advantage—anything can be worn underneath—even bathing trunks! It is, of course, quite water-proof, light in weight (mine weighs just under 61b), folds up very compactly, and can be strapped to the tank with its own belt. For footwear I use black rubber ankle boots over which the legs of the suit are strapped, thus making it impossible for water to get inside. They look like ordinary boots, cost only about 8s, and are far neater than knee-boots or waders. If I intend using headgear, I wear a helmet. I find a peaked cap tends to blow off at speed or in a high wind, unless one's head is held down. Reverting back to the suit, although it

proved quite cool in summer, it is equally warm in winter. I continued riding all through the Christmas frosts with only two pullovers extra to a lounge suit, and only my hands felt the cold. I have one small grouse against this suit, and that is its greasy appearance. It looks wet with oil, although actually it is quite dry and clean. Cannot this be improved upon, Mr Barbour?

### AL Kempsterm, London, WC2."

"THE FOLLOWING IS the nearest I have been able to find to a perfect summer riding outfit: White linen over-all suit; one-piece oilskin suit; abbreviated waders; silk or thin woollen scarf; headgear and gloves to choice. On hot days the white suit is cool, gives protection against dust, and looks smart. The oilskin suit folds into a small space in fine weather and gives protection against rain. On a very chilly evening both suits can be worn, and together provide ample warmth. Any normal clothing can be worn under this equipment, and the amount adjusted according to the temperature. If riding breeches and boots are the choice, then the waders can be dispensed with. Incidentally, I like a handlebar screen even in summer. The disadvantages of this equipment are its initial cost and the cost of laundering the white suit, unless this can be done at home.

Harold Thompson, Harrow, Middlesex."

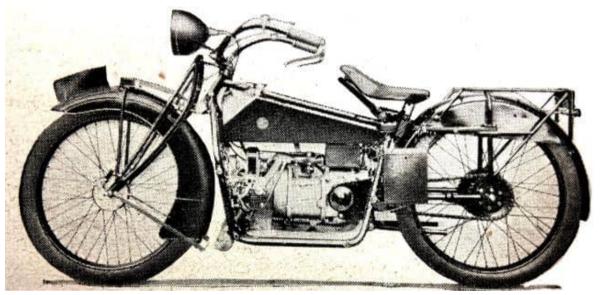
"I WONDER HOW MANY readers can recall a machine which adorned my stable throughout the war—a 500cc horizontally-opposed twin ABC with the engine mounted Douglas-fashion, instead of athwart like its younger and more famous sister? It was not, in fact, a very good bike, but was a lovely starter and very reliable, which was just as well, as I don't suppose any spares were available. Only three or four were ever made."—Ixion.

"HAVING just read the letter from Mr JM Roberts re ABC motor cycles, I feel it a duty to reply. I still have in my possession one of these most remarkable and unique machines, although I have not ridden it for some time now. The machine is at present fUlly dismantled and is in process of renovation, as I cannot allow the bike to suffer from old age. I can folly endorse Mr Roberts' remarks concerning the remarkable qualities of this outstanding design; in fact, I could almost write a book on the subject, having owned several. Incidentally, up till a few years ago, I claim to have owned and ridden a model of every motor cycle made, but the ABC was 'IT'. In conclusion, I would like it to be known that the first spring-frame transverse-twin ABC was made by hand (I once knew the foreman who claimed this distinction) at Messrs Sopwith's, in 1918, and was put on the market in, I believe, 1920.

#### AJ Coleman, London, SE4."

"THE CONSENSUS OF opinion among ABC owners was that in outline it was a magnificent design, wrecked by premature production and inadequate development. When it chose to behave nicely for a brief spell it was a lovely machine to ride—light, smooth, docile, fast and economical (I never spilt mine on grease). But certain

components, both major and minor, were far from right. The valve gear was a source of chronic trouble. The kick-starter was a holy terror. The clutch was never above suspicion. Nobody with prolonged riding experience of it ever wished to see it resuscitated without change; its fans always hoped that it would be revived with a few simple modifications to eradicate faults which formed no essential feature of the basic design."



"The 398cc transverse-twin ABC. Although produced as far back as 1920, the model has leaf rear-springing, internal-expanding brakes and unit-construction of the engine and gear box."

"WHAT A LOVELY spring frame has been designed by Mr Bradshaw for the Panthers. No pins, shackles or sliding parts to get full of dirt and rattle; it is certainly worth waiting for. With regard to the new Panther twin, may I implore Mr Bradshaw to give us two things? (1) Complete mechanical silence; (2) at least 500cc, and thus avoid two of the serious mistakes made with the Panthette. Is it too much to hope for shaft-drive?

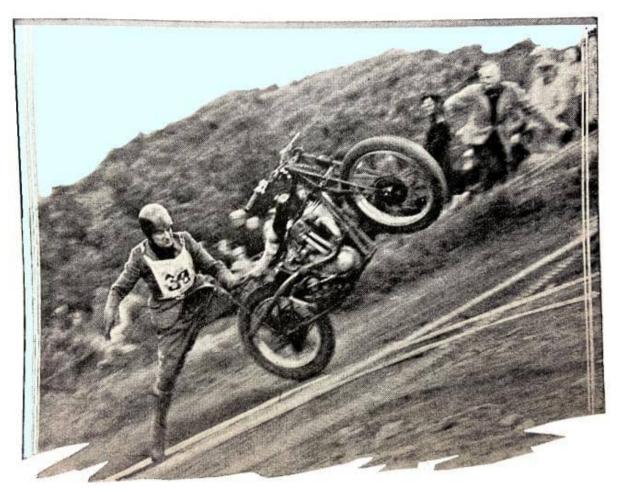
GH Illingworth, Leeds."

"MAY I THANK MR GH Illingworth for his appreciation of the simplicity of the Panther rear springing? I hope that it will come up to his and other riders' expectations. If it turns out to be troublefree, perfect in steering after 50,000 miles, and within the reach of most riders' pockets, I shall feel that I have achieved the main objects. With regard to his queries on the 'twin' engine, it is much too soon to talk, but I think that I can satisfy him on the two queries he raises, ie, it is of 500cc capacity, does not contain a single gear wheel, and I have betted Mr. Moore, of Cleckheaton (who is taking great personal interest in the building of the first batch) that it will be as quiet as his new 2½-litre car. If all goes well we shall see it at the Show, but many thousands of miles will have to be covered before Messrs. Phelon and Moore will decide to go into production. This is all to the good, and brings to my mind the somewhat unpleasant production phase of my old ABC machine which Ixion and others have discussed. In giving the following brief

particulars, I have a feeling that we have reached the stage when we should forget the past and what prestige it might have brought to the British motor cycle industry, and should concentrate upon the future and the return of that prestige. The ABC company started life to design aeroplane engines four or five years before the War, and having obtained the British Duration Record, the Michelin Cup, the Shell Trophy and 22 firsts out of 24 cross-country events, we were told by the 'Powers-That-Be' that 'they could not discern any utility for warfare in any form of aircraft'. And in order to prevent the company closing down from lack of orders, I used experience gained in aircraft engines, and built a 500cc opposed 'twin' with the engine mounted Douglas fashion. The final machine was on the market early in 1914, with front and rear springing and a four-speed gear box with gate change, and by August we had reached an output of some five or six machines per week, with a considerable number of orders on hand because Jack Emerson (whom we had taken on as our rider) succeeded in securing the mile and km records and many wins on the track. Our factory was on Brooklands track. Immediately the War broke out it was commandeered and we were given 48 hours to move, which completely put a stop to What might have been a promising business. The engine itself, however, was built in large quantities throughout the War for portable wireless, portable searchlights, trench pumps and numerous other uses. Long before the War finished I had preconceived ideas of a type of machine I would build when hostilities ceased, and in 1919 there appeared the transverse-twin, which apparently was sufficiently good in conception to have remained a topic of conversation for over 20 years. It weighed 204lb, and was of 400cc capacity, the idea being to appeal to the masses and not to the sporting element (an ideal which I now think was wrong). It took the hour record on more than one occasion against the best of 500cc machines, it did spectacular climbs at Sutton Bank when other machines failed to climb the hill at all, and in its short and hectic career it won between 30 and 40% of all the races it entered at Brooklands, with the result that we received firm orders for no fewer than 45,000 machines. From this minute onwards, Ixion is right in stating that it was wrecked by premature production and inadequate development. The factory had previously been devoted to the building of aeroplanes, which in those days were made of wood., Strenuous efforts and unlimited capital (over half a million pounds) were devoted to supplying this colossal demand, but there is a great deal more in the production of the perfect motor cycle than the mere manufacture of parts, add thus before the testing and development phase was completed the well-known slump set in and the bulk of the orders were cancelled. During this period we were approached by France and Germany for manufacturing rights, and the result of concentration upon the type is undoubtedly to be seen in the recent TT successes of a foreign machine. Here is an object lesson that should not be repeated, and in my view an old-established firm with full knowledge of the requirements of motor cycle manufacture, of the motor cyclist and of the importance of upholding a reputation is greatly to be desired; hence, my greater feeling of confidence in working with the Cleckheaton engineers. Let me say again—it is premature to talk at

this stage. Designs can only survive if tHey are technically worthy—and the production engineer mUst play a very important part. That British manufacturers will come back again I, personally, have no doubts.

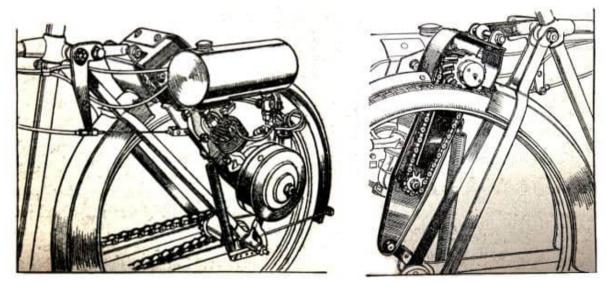
Granville Bradshaw, London, W1."



"The camera catches G Walton in a striking pose as he dismounts (involuntarily!) during an event at the Scarborough Club's freak hill-climb meeting at Scalby."

"A SIMPLE yet practical self-contained engine and drive unit for attachment to a normal bicycle has been patented by Mr CH Harrison, of the British Anzani Engineering Co (72-74, Windmill Road, Hampton Hill, Middlesex). The unit is attached to the frame at two points, and the only extra parts required are a longer rear-wheel spindle and a bolt to take the place- of the usual saddle-tube pinch bolt. Links pivoting on these two points allow parallel movement on a long pressed-steel back-plate, which is normally mounted on the near side just behind and approximately in line with the fork tubes. The 60cc (44.5x39mm) two-stroke engine is mounted out-side this plate, and retained by two of the crankcase bolts and the silencer bolts. On one mainshaft (outside or remote from the back-plate) is mounted the flywheel magneto, but the other mainshaft passes through the back-plate and carries a 10-tooth sprocket, which is connected by a chain to a 17-tooth sprocket on the 3in-diameter friction pulley. This pulley, which runs on ball bearings, bears on the tyre of the rear wheel, and grip is obtained by means of carefully

designed splines...The carburettor is attached directly to the inlet port and fed with petroil from a small cylindrical tank which is bolted to the back-plate immediately above the engine. Both top and bottom swivel links have a limited travel, and, since they are attached to the back-plate, move the complete unit. This arrangement is provided for disconnecting the drive; thus as the unit moves upwards the friction pulley clears the wheel. The top link forms a right-angle, and is connected by means of a Bowden cable to a handlebar lever which has a single ratchet. When the lever is raised the unit is lifted, and the bicycle can be ridden in the normal way. At the same time, by an ingenious inter-connection of this cable with a small bell crank, the compression release is depressed, and thus the engine is stopped even if the throttle is not closed. When the handlebar lever is released the unit drops until the friction pulley is seating on the tyre, due to its own weight and also to the action of a small coil spring fitted between an ear on the back-plate, and an arm on the bottom swivel link. Other handlebar controls are the throttle and the strangler. The outstanding feature of the design is the ease with which the unit can be fitted and its suitability for any pedal cycle. Another point is that the complete unit weighs only 211b...A short road test of the experimental unit clearly demonstrated its practicability. The lever which disconnects the drive was easy to operate, and when re-leased the engine started immediately. Driving was a simple matter of throttle control, as the engine would pull comfortably at speeds lower than that at which the rider could balance. An important point is that the engine is mounted low, so that normal balance is not affected. There was no vibration, and the drive did not slip; it is understood that slip does not readily occur even in wet weather. Production is not contemplated by the British Anzani Company owing to pressure of other business; hence the design is available to any interested manufacturer."



"A simple pivot arrangement permits the drive to be disconnected." (Right) The drive from the engine is by chain to a grooved pulley that bears on the rear tyre."

"IN VIEW OF THE INCREASING public interest in lightweight utility machines, conditions would appear to be favourable for a revival of that handy little vehicle the motor scooter.

From America, where there has been a new boom in these intriguing runabouts, there has just arrived a practical and well-made little machine known as the Moto-Scoot. At the present time its use in this country is confined to holiday camps and the like, but there is no reason why it should not give good service as a road vehicle, particularly for short journeys and as an auxiliary to a car or a larger motor cycle. In its simplest form the Moto Scoot has a single gear and a ¾hp side-valve four-stroke engine, but other models are available with engines from 1-2½hp, with either a two-speed Albion gear box or a simple variable gear, provided by means of an expanding engine pulley. In the least expensive machine the transmission is by means of a vee-section rubber-fabric belt to a countershaft, thence by chain to the rear wheel; but the gear-box models have

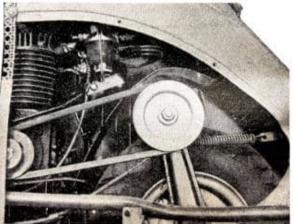


"The Moto-Scoot is a well-made little machine with several interesting features. Note the built-in head lamp and the cushion-type seat."

chain drive throughout. The countershaft is supported on two long arms attached at their lower ends to the rear wheel spindle, about which they are free to pivot. A long tension spring connects the countershaft to the rear chassis member, so that the primary drive is kept automatically tensioned, the pull of the belt counteracting that of the spring. This arrangement also pro-vides a form of clutch, since the countershaft is connected by means of a Bowden cable to a handlebar lever, and when the lever is operated the countershaft is pulled forward, thus causing the belt to slip...The

mainshaft carries the driving pulley or sprocket on the near side, and on the off side there is a large cooling fan. Beyond this is a pinion which engages directly with the segment of a lever-type kick-starter. Splash lubrication is employed, and the oil is carried in a sump formed integrally with the crank-case casting. A simple type of carburettor is used, and this incorporates both air and petrol filters. It is operated by an inverted lever on the handlebars. Incidentally, the clutch and throttle levers are the only controls on the handlebars. The pressed-steel chassis is reinforced by cross-members, and electrically welded to ensure maximum strength. In the least expensive-model the forged steering head is bolted to the chassis, but in other models welding is employed throughout. Easily detachable shields completely enclose the engine and gear units, and on some models the rear portion of the housing forms a useful locker. Tubular front forks are fitted, those of the de-luxe models incorporating a simple type of springing. Other interesting features are pressed-steel wheels, a substantial prop-stand, electric lighting, balloon tyres and a foot-operated external-contracting rear brake."





"This off side view shows the chain drive from the counter-shaft to the rear wheel, the engine fan and the massive kick-starter mechanism." (Right) "In its simplest form the Moto-Scoot has a single gear and belt drive. The countershaft pivots on the rear-wheel spindle, and the belt is kept tensioned automatically by means of a spring."

"BELOW ARE DETAILS of a tour I recently carried out on my Excelsior autocycle, which may interest present and prospective riders of motorised bicycles. Barring an oily plug no trouble was encountered during the run, which lasted eight days. We (myself and a friend on a Rudge) started from Bristol at 2.30pm one Saturday, and rode through Bridgwater, Minehead and Porlock to Lynton. After a tour round on Sunday we continued through Ilfracombe, Barnstaple, Bideford, Clovelly, Bude, Boscastle and Wadebridge, and stopped for the night at St Columb Major. At eleven o'clock on Monday we travelled through Newquay to Perranporth. Although it was early in the day we decided to stop and see the famous Blue Hills. We then continued to Portreath, St Ives, Penzance and Land's End. From Land's End we cut back through Penzance, Truro, St Austell, Fowey, Polperro and Looe to Torpoint, where we stopped in the little village of Antony. On the

Wednesday we crossed the ferry to Plymouth and rode through Totnes to Torquay. We stayed a few days in Torquay and than pushed on to Exeter. At Exeter we turned back and encircled Dartmoor, finishing up at Princetown. After tea we travelled to Taunton via Honiton. On the Sunday we made for Bridgwater, Burnham and Weston-super-Mare, and arrived home in time for dinner. We were not out to cover any great mileage or set up any records. Throughout the tour the machine gave wonderful service, although, of course, it had to be assisted by the pedals on some of the steeper hills.

### R Chappelle, Bristol."

"THE LETTER OF your correspondent, 'Annoyed', raises once more a question which appears to have caused numerous motor cyclists, myself included, much worry. In view of the increased taxation, many of us will be asking the question, 'Will a 350cc machine be satisfactory for sidecar work?' There have long been rival opinions on this subject, but few riders seem to have approached the problem with the two-stroke machine in mind. Speaking from experience, I suggest that any rider faced with the necessity for economy in the future should investigate the merits of a large two-stroke, preferably water-cooled. The pulling power and reliability of this type of machine makes it, in my opinion, a thoroughly sound sidecar job.

# Geoffrey Kent, Edgware, Middlesex."

"I RUN A SMALL-CAPACITY outfit—a 350cc Redwing Panther. I used the machine solo at first, and a medium-weight side-car was fitted later. My outfit does from 700 to 800 miles every week. The last two weeks I have been on holiday in Scotland, covering 1,750 miles in rain, fog, sunshine and gales. My weight is 10½ stone and that of my passenger 8½ stone; my dog weighs 20lb; and there is full camping kit, tools, spare gallon of petrol, tube, waders, a day's food, spare clothing, etc. I get 80mpg and 50mph on full load. With the sidecar empty the maximum speed is 65mph.

#### Cpl S Pearce, Hendon."

"A 350cc SIDECAR OUTFIT ought to do very well considering that (ignoring 'freak' hookups) there must be quite a number of even smaller-powered outfits on the road. I personally have driven a 250cc outfit for 3,000 miles, and I never had any reason to complain of performance. Hill-climbing was very good, ability to pull a load outstanding (the engine was a two-stroke), and a cruising speed of 35mph quite normal. Several makers have in the past had sufficient confidence in their products to market 250cc outfits complete—Matchless, Coventry Eagle and SOS being three names that come to mind. Quite possibly, as suggested by 'Cyclo' and 'Annoyed', agents can be blamed for some of the lack of popularity of these small outfits; but many experienced riders also sneer at these babies.

## JPN, Cardiff."

"I HAVE BEEN INTERESTED in the small-capacity sidecar outfits correspondence. Two years ago I had a 1927 ohv 350cc BSA outfit which ran quite happily at 40; it is now 1939,

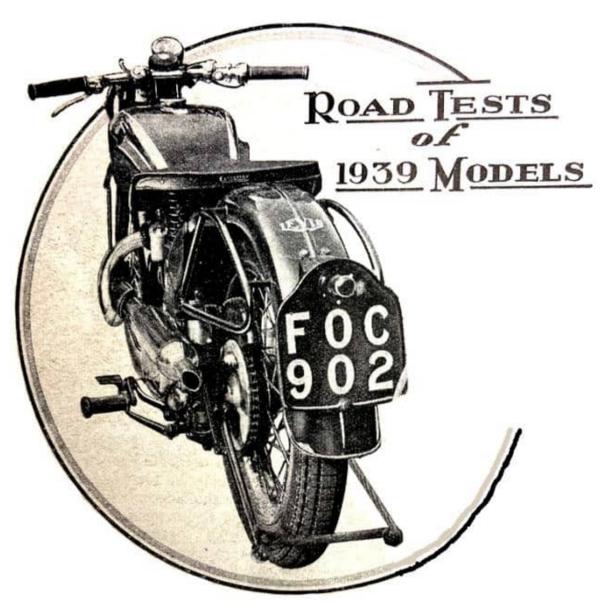
and my idea of 'small' is 150 and 250cc. I believe there is a large market for a 250cc outfit that will cruise at 30mph just as all these years there has been a market waiting for the autocycle—all that is required is the co-operation of the producers. Having had a 125cc solo and experienced its capabilities, I firmly believe a 250cc deflectorless-piston two-stroke outfit—if necessary cooled by a fan—would be a huge success. **Esperanto,** Manchester, 2."

"IS IT A RECORD?' is rather a favourite in the way of queries. The other day I received a letter written by a 250 owner who stated that he had drained his tank, put a gallon of petrol in it, and, verified by a witness, covered 175 miles. He then mentions that he has done 900 miles a week for twelve months, that he has touched 72½mph, and that in 39,600 miles the engine replacements are new valves and guides and a couple of sets of valve springs, which, he adds, he renews every six months as a routine replacement. His query is whether any other Red Panther owner can beat his figures. If anyone sends me figures that are much better, please note that I shall want to borrow his machine!"

"I HAVE READ many letters from your correspondents concerning the performance and long life of their mounts and I feel I must give you the following details of my own machine. The machine is only a 98cc, but I have attached a large sidecar and am considering fitting a trailer caravan, as there seems plenty of room still needed for our seven children. I ride the machine every day to work (about 70 miles each way) and often do the journey in an hour and five minutes. I looked in the oil tank once (in 1931), but everything seemed all right, no I have played for safety and not disturbed the filler cap. The rear tyre has done 25,000 miles, but looks as though it will last quite a time yet, and the rear chain likewise. Petrol consumption is rather good (about 300mpg), and once I fitted a new carburettor which was supposed to save fuel, and believe me, my masters, before ten miles were covered the tank overflowed! As I have no speedometer I am doubtful as regards the top speed, but I have frequently mistaken milestones for a cemetery and found my coat singed at the elbows. I have twice dislocated my wife's neck by rapid acceleration, and only saved her life by crashing on the brakes and jerking it back into place, at the same time wearing deep furrows in the road and bending the handlebars forward. I have never laid a spanner on the machine and was startled to find some tools in a peculiar little box tucked away in the frame. I have had one replacement—a head-lamp glass, which was cracked when I inadvertently sounded the horn in a narrow street.

HD Williams, Thornton Heath, Surrey."

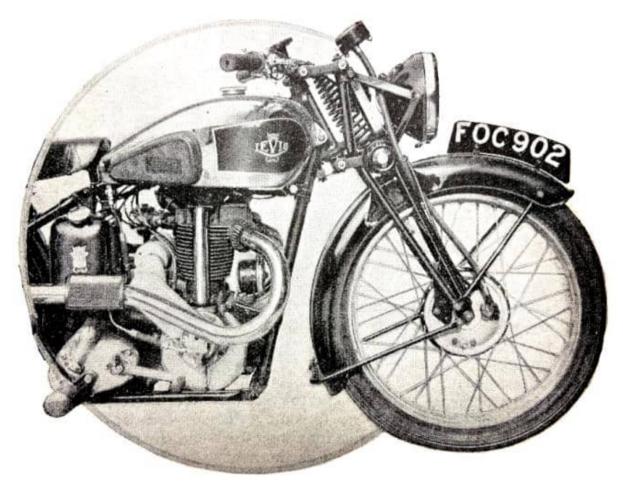
The 498 c.c. O.H.V. JEVIS Spring Frame



"Even from this unusual angle the rear springing of the Levis is not really noticeable. The grease-filled balancing and damper pipes are carried forward unobtrusively."

"AMONG THE SPRING FRAMES exhibited at last year's Show the Levis design was one of the most outstanding. An interesting feature is that allowance is made for unevenness in spring pressure by means of grease-loaded balancing pipes. Thus road shocks are equally distributed on both ends of the rear-wheel spindle and the fork-ends are relieved of uneven loading. This frame is fitted to both 350cc and 500cc models, and an example of the latter type was recently road-tested. The steering and road-holding of the machine were first-class. Short, natural-angle handlebars are fitted, and the machine could be ridden easily almost to a standstill feet-up. At town speeds the springing proved sufficiently soft to absorb all but the very worst road shocks, and bumpy tram setts could be ridden over in comfort. Only the slightest trace of waver was noticeable when crossing tramlines at a very narrow angle, and although the machine was deliberately zig-zagged across the lines the steering remained perfectly steady. On

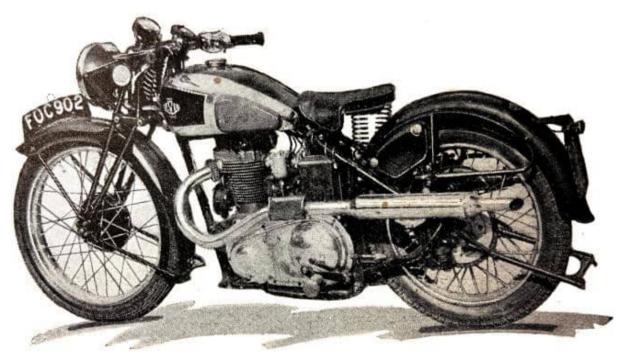
the open road the full benefit of the springing was felt, for when cruising at high speeds the rider could sit comfortably in the saddle. Poising on the rests was unnecessary except at high speeds on secondary roads or on some poor stretches of main road. The springing bottomed only when the machine was ridden fast over really rough ground. Cornering with the Levis was delightful, for it could be swung round fast bends in a manner normally associated with racing machines, and the extent to which the machine could be laid over was controlled only by the footrest position. Even on poor roads the Levis always



"The neat engine with its total enclosure and single push-rod tube is mounted in a new built-up cradle frame. The Girling brake on the front wheel is provided with an adjustment for the shoes."

retained its line on bends. In addition to the comfort afforded by the spring frame, the Levis scores by reason of a fully adjustable riding position. The makers have succeeded in providing a position that can be adjusted to suit the tall rider as well as the man of normal height. There is a double adjustment for the footrests which gives a really useful range of positions, and the brake pedal and gear lever can be adjusted accordingly. Add to this the flat handlebars with their comfortably placed controls, and there is a riding position that will suit most tastes. The only criticisms that might be raised against the 'comfort features' are the high-level exhaust pipes, which owing to the spring frame are

rather widely set, and the reduction in steering lock which occurs when the handlebars are in a lowish position. As regards performance, the machine was really delightful when cruising between 45 and 50mph. At this speed there was little mechanical noise some clatter was audible at lower engine speeds—while the exhaust note was a pleasantly subdued burble which the rider could hear only by turning his head. At no time did the exhaust noise become excessively loud. Some vibration was noticeable at the top end of the speed range, but it was not sufficient to cause discomfort. On an ethylised fuel the Levis would climb almost any main-road hill in top gear (4.6 to 1) without protest. The engine pulled really well and never pinked during the test. Pebblecombe Hill in Surrey, with its maxi-mum gradient of 1 in 5½, was climbed comfortably in top gear, and on main roads only traffic conditions necessitated use of the gear box. It has already been mentioned that the gear pedal is adjustable; it is also well placed and gear changing was positive and delightfully easy. A slight whine was noticeable on the overrun in the intermediate gears. On the best timed run the Levis covered the quarter-mile at nearly 82mph, and at this speed, and through-out the range, the speedometer was found accurate. The mean timed speed worked out at 78.3mph, while the best speed attained in third gear, which has a ratio of 6.4 to 1, was 73mph. Acceleration was well up to standard, and the useful figure of 66mph was reached at the end of a quarter-mile from a standing start.



"At first glance the Levis does not appear to he sprung. Special features are the sturdy lifting handles and the dual adjustment for the footrests."

At low speeds carburation was not perfect, and this affected both acceleration from low speeds and slow running. Starting presented no difficulties and the kick-starter ratio is well chosen. Generous flooding, a fairly wide throttle opening and a long, swinging kick would usually ensure an immediate start. An unusual feature of the engine was that a

large throttle opening was required even when the engine was hot. The Girling brakes fitted to both wheels of the Levis were positive and without any sponginess. They were well up to their work and could be used hard with safety; only once was the front wheel locked, and that was on some loose sand. A feature of the suspension is the way the front forks mate in with the rear springing. At no time was there a semblance of judder or harshness in their action. Other good points are the excellent mudguarding and the arrangement of the saddle, which effectively prevents tank-top cascades in wet weather. No clatter emanated from the spring-up rear stand, even on rough roads. An unusual feature in this connection is the provision of sturdy twin lifting handles, which are both neat and most useful. At the conclusion of the test the engine was free from serious oil leaks, and in spite of the thrashing the spring frame had been given, very little grease had oozed on to the exterior sliding surfaces. To sum up, the Levis is a machine that steers well, has a first-class riding position, a good turn of speed and a spring frame that smooths out the bumpiest of roads. It is a thoroughbred that is just about guaranteed to appeal to the connoisseur."

"TO RAIN OR NOT TO RAIN; that is surely the question that was pondered by the Clerk of the Weather during the two hours preceding the start of the BMCRC's Cup Day meeting last Saturday. Riders and officials dashed around muttering hard things about the fine rain that was falling and looked anxiously for a break in the clouds. More anxious than most was Noel Pope, who hoped to attack the lap record on his supercharged Brough Superior. Just before 2.30pm the rain stopped, but the track was damp enough to make caution necessary when the field lined up for the opening race—a five-lap Mountain handicap for a cup presented by JW Forbes and CK Mortimer. Five non-starters reduced the field to 17, and all got away smartly except DA Loveday (497cc Ariel), who required a 50-yard push. The limit man, JM Givons (348cc



"As usual at Brooklands the Paddock is a centre of attraction. Here are competitors lining up just before going out for the ten-lap Mountain handicap."

Velocette), came round first, but obviously his joy would be short-lived with RF Hill (348cc Norton), WA Lampkin (348cc Velocette) and RA Mundy (348cc Norton) yowling along in a bunch very quickly not far behind. The supercharged twin Triumph, ridden by J Henry from the scratch mark, seemed to be going well, but was too far behind ever to threaten the leaders. Lampkin pulled something out of the bag, and by the end of the third lap led from D Hedderwick (348cc Velocette), Mundy and Hill. Suddenly a decrepit looking Norton was seen cutting its way through the backmarkers in an altogether astounding fashion. Yes, the programme confirmed it, it was JH ('Crasher') White, and he was riding so forcefully that he had caught all but Lampkin by the fourth lap. Eventually, he displaced the leader just before the fork turn on the last lap, to win a cleverly judged race. Lampkin, Mundy and Hedderwick followed closely. The ten-lap Mountain handicap for the Viscount Wakefield Cup promised well, but seemed to lack sparkle, probably because from the spectators' point of view it was difficult to follow. When the scratch men are just getting away as the limit men have completed a lap, it is a question of following the race by means of the loudspeakers, which are frequently made inaudible by passing machines. Private duels provided the major interest; for instance, VH Willoughby (348cc Velocette) scrapped closely with. WA Lampkin (348cc Velocette), and farther back D Hedderwick (348cc Velocette), EG Mobbs (348cc Velocette) and DA Loveday (497cc Ariel) were in a bunch. FL Beart (502cc Norton) and J Henry (498cc Triumph Twin



"Close-company cornering at the Fork; BW Smith (344cc OK Supreme) leads VH Willoughby (348cc Velocette, No 14) and RA Mundy (348cc Norton, No 17)."

supercharged) were so far behind that it seemed unlikely they would threaten the leaders, who at half-distance (5 laps) were JM Givons (348cc Velocette), RA Mundy (348cc Norton) and VH Willoughby. DA Loveday (497cc Ariel) also looked promising, and it caused no surprise when he took the lead on the ninth lap and went on to win. Mundy followed Willoughby for third place some way astern. On the starting line for the second five-lap Mountain handicap was MWK Tisdall's supercharged 494cc BMW which, perhaps in virtue of Meier's win in the Isle of Man, was examined by spectators with unusual interest. But Tisdall, the scratch man, as R Harris had withdrawn was never in the picture; in any case he would have had to lap inordinately fast to beat the winner, EJ Freud (998cc Vincent-HRD), to whom he conceded 16sec. After three laps the limit man, DH Whitehead (250cc Rudge) held the lead, with Frend going quietly yet remarkably quickly in second place. About 150 yards behind was EG Price (348cc Norton). One circuit more and Frend, to everyone's astonishment, had a clear 200-yard lead from Whitehead, with VH Willoughby (348cc Velocette), again circling admirably, a not very close third. No one could possibly embarrass Frend, who before crossing the finishing line had lapped VH Baker (249cc Excelsior). Willoughby was second, a long way behind, and Whitehead third. RA Mundy (348cc Norton) and G Newman (348cc Velocette) had a sparkling scrap for sixth place, which the judges awarded to Newman. While the timekeepers were moving over to the other box for the outer-circuit events, Noel Pope decided to make his hid for the lap record, as the track was now quite dry. The big Brough looked extremely impressive as it screamed round on the opening lap for the flying start, and those with an eye for speed were looking hopeful. But it was not to be; on the timed lap the front piston tightened up when Pope was on the Byfleet Banking, so the record of 123.58mph put up by the late Eric Fernihough still remains. If the first outer-circuit race over three laps provided no thrills, it was at least distinguished by three Gold Stars, culled by LA Howe (497cc Ariel), 101.43mph; MN Mavrogordato (996cc Brough Superior), 100.21mph; and in particular EJ Frend (998cc Vincent-HRD), with a speed of 110.68mph on a machine that had been ridden to the

track and was running on petrol-benzole. LA Howe (497cc Ariel) won a nicely judged race from the 39sec mark, though the irrepressible Frend would have caught him given another couple of hundred yards. EN Iffland (346cc AJS) was third after holding the lead for two laps. Is a ten-lap race too far these days? It seems to be, for a poor entry of twelve in the second event for a Viscount Wakefield Cup was reduced to six by non-starters, and after one lap only five machines were still going. The order was GE Gott (499cc Vincent-HRD), FWS Clarke (249cc Triumph); and WA Lampkin (348cc Velocette). The riders were well strung out for lap after lap, with only VH Willoughby (348cc Velocette) doing any passing,



"VH Willoughby (348cc Velocette) almost hides DA Loveday (497cc Ariel) as they turn on to the Members' Banking during the ten-lap Mountain race. Loveday finished first and Willoughby second." Vic Willoughby went home with a creditable but no doubt frustrating record of four second places and a fourth—though he must have taken solace that his fourth place put him ahead of the formidable 'Crasher' White. Vic went on to become technical editor of *The Motor Cycle*; readers are urged to look him up in the Gallimaufry.

to displace Clarke for second place. The next race, a five-lapper for the Ron Harris Cup, was like a pleasing stimulant, mainly because FWS Clarke (503cc Triumph Twin) motored so quickly. Miss B Shilling's 490cc Norton with the centrifugal supercharger was also out again, though, as before, its speed was rather disappointing. After two laps A Wilkinson (498cc Rex-Acme) led, though not by very much, from TEG Gardiner (490cc Norton), FWS Clarke and VH Willoughby. After only one more lap Clarke had a 300-yard lead, which he increased as he pleased, while Willoughby and MN Mavorogordato (996cc Brough Superior) also caught Wilkinson. There were more Gold Stars in this event, the winners being MWK Tisdall (494cc BMW supercharged), 101.23mph; FWS Clarke (503cc Triumph), 110.43mph; and VH Willoughby (348cc Velocette), 100.29mph. Another three-lap race brought the meeting to a close. In this event Clarke and his twin Triumph again won at 104.63mph—a precisely similar speed to the previous race,

though this time he was off the scratch mark. DH Whitehead (250cc Rudge), 1min 12sec, held the lead until he began to slow for an unexplained reason, and immediately G Newman (348cc Velocette) was in front, chased by Clarke and GE Gott (499cc Vincent-HRD). The last-mentioned obtained the seventh Gold Star of the afternoon with a lap at 100.01mph. Clarke and Newman changed places, and VH Willoughby, out for the fifth time during the meeting, obtained fourth position ahead of JH White (490cc Norton). This afternoon of Gold Stars was rounded off by MRL. Tuffnell (998cc Vincent-HRD) clocking 104.89mph.

"IN REPLY TO 'FOUR WHEELS', who desires to know whether there is a particular fascination in pillion riding: for me there very definitely is! Although I am keen on motoring, the sportiest sports car or the most luxurious saloon cannot compare with the joy and thrill I got from riding on my pillion seat on a super motor cycle behind a clever and capable driver in whom I have every confidence. The state of the weather does not enter into it—rain, hail, or shine, every moment of my ride is sheer joy to me. I would like to add that my pillion seat is not of the 'sprung' variety, but an ordinary sponge-filled mudguard pad, and on this little seat, on more than one occasion, I have done a day's tour of 250 miles without the slightest discomfort.

Pillion Fairy, Amesbury."

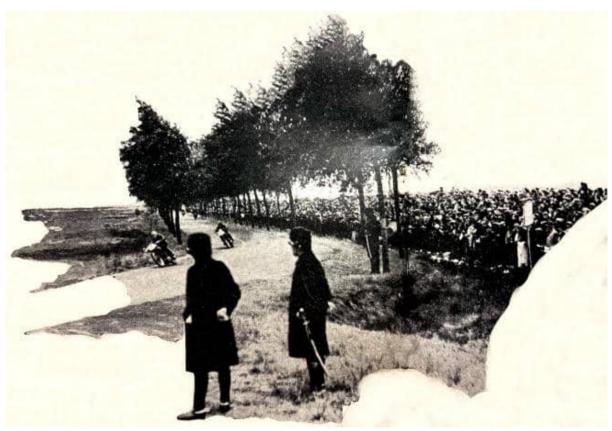
"WITH REFERENCE TO the correspondence on how far motor cyclists ride non-stop, I may say that I have a pleasant little ride which I do nearly every week. I go from Coventry to Conway, on the North Wales coast, and the distance according to my speedometer is 147 miles. My route is through Castle Bromwich to Brownhills, where I come on to A5, ie, the London-Holyhead road. I leave the A.5 at Bettws-y-Coed, And go down the Conway Valley to Conway. My machine is a 1932, 350cc KSS Velocette. I always travel non-stop, except on those occasions when I stop to help someone in trouble. My usual time is  $3\frac{1}{2}$  hours, and my best time  $3\frac{1}{4}$  hours. I admit I am glad to get off the bike, but after a wash and some tea I always go out on the bike for a spot of fresh air. Half an hour's rest, and, if necessary, I could come straight back to Coventry non-stop. Anyone who cannot do more than 50 miles non-stop should give up motor cycling and take up bath-chairing. If I had a long journey to do—something which meant four or five hours' riding—I should ride for 55 minutes and then rest for five minutes. I think that is a much better plan than setting oneself as much to do before calling a halt.

Alfred Thorp, Coventry."



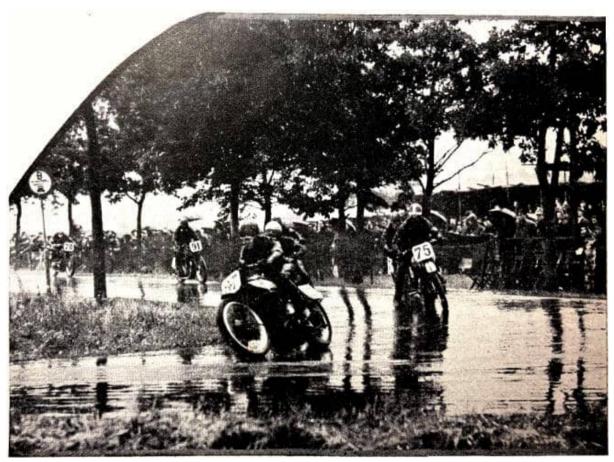
"IN HOLLAND THE TT RACES are events of national importance. In every town and village posters announce the races, while in the vicinity of the course business is suspended for the period of the meeting, and all interest is in the TT The little town of Assen, in the North of Holland, which is the headquarters of the organisers, becomes a holiday town and flags and bunting decorate the streets...This year the practising period has been blessed with fairly settled weather. The fastest men have been those who shone in our own TT races, for, with the exception of the Nortons, all the famous International racing stables are represented. Stanley Woods, Mellors, Tenni, Fleischmann and Kluge have all put in good laps. In the 500cc class Meier with his BMW has been lapping very quickly, but Serafini on the Italian four-cylinder supercharged Gilera holds the honour of making the fastest practice lap at nearly 100mph, and there is every prospect of a good race. But on the great day, Saturday, hopes fall, because we awake to the sound of heavy rain. The Assen course is infamous or its treacherousness in wet weather, and the prophets foretell many spills...[but]...by two o'clock, when the

International races are due to start, the roads are dry. In the morning many mechanics had been busy with hacksaws making cross-cuts in the treads of the tyres to give then extra grip on the wet roads. The International classes, 250, 350 and 500 c.c. are sent off at two-minute intervals. In the 250cc class it looks like being a German-Italian scrap between the Guzzis and the DKWs...on the first lap Tenni's Guzzi catches and passes the three DKWs, and when he conies round to start his second lap only the redoubtable Kluge is anywhere near him. And on the ensuing laps the Italian proceeds to shake off the German and to demonstrate the amazing speed of this supercharged 250. On the eighth lap Tenni circles at 81.59mph, which is faster than the average speed of the fastest 350, and after fourteen laps his average speed is higher than that of the 350cc leader. The DKWs simply can do nothing about it. Kluge gradually falls farther and farther back and at half-distance (eight laps) he is over two minutes behind the flying Tenni...Then, on the 15th lap, the loud-speakers announce that Tenni has stopped at Laaghalerveen with engine trouble and is feverishly working on his machine. A hush comes over the crowd, for they are obviously very disappointed. Everyone waits expectantly; Tenni has two minutes in hand—enough to change a plug or effect some minor repair. But no! Kluge comes round in the lead and there is no sign of Tenni. Petruschke also goes by, and suddenly the huge crowd are on their feet cheering themselves hoarse. A crouching figure on a red machine roars past



"Huge crowds lined the course in spite of the bad weather; on this bend which leads back to the start they were over a dozen deep. The riders are L Simons (Excelsior) and K Lottes (DKW)."

the stands—it is Tenni—but to those who have 'ears' it is obvious that his engine is sick. Kluge has only one more lap to go and he gets the flag, a comfortable winner after being so far behind. Tenni gets an ovation when he finishes third behind Petruschke. In the 350cc class Britain has several representatives. They include Stanley Woods, EA Mellors, JE Little, MD Whitworth and ER Thomas, all on Velocettes. Two British men, JB 'Crasher' White and F Anderson, are riding foreign machines. Again a DKW rider is first away, for these machines seem to develop full power from extremely low revs. The rider is the German crack, H Fleischmann, who made the best time in practice. Right on his heels are 0 Ruhrschneck (NSU), W van Gent (Velocette) and EA Mellors (Velocette). At the end of the first lap Fleischmann still holds the lead, but the second man is another DKW rider, S Wünsche. Britain is in third place in the form of EA Mellors (Velocette), while Stanley Woods, after a bad start, is sixth. But this is only the start of a fierce race, with Mellors and Woods doing their utmost to beat the Germans. After a few laps it begins to rain again and Mellors sandwiches himself between Wünsche and Fleischmann, with Wünsche now in the lead. Behind this trio is Stanley Woods. But fourth place is no good to Stanley, and on the sixth lap he makes the fastest circuit of the day at nearly 84mph, and in doing so overtakes the three men in front of him. For three laps the first four men keep close company on this very fast course—a Velocette in the lead, followed by a DKW, a Velocette and a DKW. After nine laps the leaders begin to come in for fuel. On the seventh lap Woods and Fleischmann had brought the crowd to their feet by flashing past the stands absolutely wheel to wheel. They come into the pits together, but Fleischmann overshoots, giving the careful Woods a few valuable seconds. Woods, however, has to take in oil as well as fuel, while the DKW requires only petrol, so the advantage is cancelled out. Fleischmann's engine fires immediately and he is in the saddle and away; Woods seems to be taking a long run. Hello, he's stopped and is tickling the carburettor. Another run, this time with his hand over the intake. Ah! she's fired, but that delay has cost Stanley many seconds. On the, next lap Mellors leads, but after he has filled and the positions are settled again it is seen that Woods has dropped to fourth place behind Wünsche, while Mellors is tailing Fleischmann...The Britishers are not to have things their own way to-day. Wünsche increases his speed and on the 12th lap overtakes Mellors, and two laps later he passes his team-mate to take the lead. Mellors also spurts and overtakes Fleischmann. On the last lap Stanley makes a terrific effort, but is just unable to snatch third place from the German. Italy and Germany are again rivals in the 500cc class. Meier, the German champion, is on his BMW and Italy's hopes are pinned on Serafini with the supercharged Gilera, which during the winter has been cleaned up and improved enormously. On this occasion Meier knows that there is no time to lose



"Very heavy rain caused reduced speeds and many spills. In the National races the riders were not ashamed to use a steadying foot at De Haar corner. Among the British machines in the picture are Norton, Triumph and Excelsior."

and he is first away at the fall of the flag, followed by Jac Schot, also on an official BMW. Serafini has to take two runs to get his Gilera started, but he is soon after the BMW men. At the end of the first lap Meier is still in front, but his lead over Serafini is only about a hundred yards. The third man, L Kraus (BMW) is also hotly chased by a second Gilera ridden by a newcomer, Vaillati. These four provide all the thrills, for the rest of the field are a long way behind, already. The order among the first four men remains unaltered, and just when it starts to drizzle with rain Meier increases his lead to about 200 yards. On the next lap Serafini's skill on wet roads shows itself, for he is right on Meier's tail. For lap after lap these two race round together, never more than a hundred yards apart, often much closer. The speed of the two machines is terrific and it is a wonderful sight as they weave their way through batches of the smaller classes. Vaillati has now moved into third place, for Kraus retired at the pits on the eighth lap after making a slow circuit. He is not the only one to retire, for by half-distance seven of the 18 starters have given up. After the pit stop Meier draws away from Serafini again, and with eight laps to go has 12 seconds in hand. It is on this lap that the excitement really begins. Serafini reduces Meier's lead to four seconds; on the next lap the crowd is wild with excitement when the Gilera is seen to enter the starting straight some way ahead of the BMW Serafini,

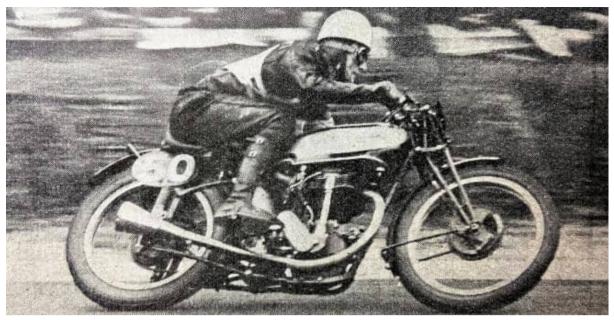
however, is not satisfied and proceeds to leave Meier farther and farther behind. Then, when the officials are preparing to flag him in as the winner, the news comes in that he has fallen from his machine at the back of the course. The crowd are hushed, but they cheer when it is announced that Serafini has remounted and is away before Meier has passed. Everyone cranes their necks to the long tree-lined straight which leads back to the start, but it is Meier's white helmet that is seen approaching first. Serafini later cruises in with a smashed machine and it is learned that he had fallen again. On the next lap Meier receives the chequered flag to record the third German victory of the day. The national anthems are played and hardly have the last notes died away when down comes the rain in torrents, to soak the thousands of people on the trek home."

"READING THE STORY of the Dutch TT in which Mellors' second place with a Velocette was our only 'place' in the three international races, I remembered mournfully a previous Dutch TT which I described, when literally nobody stood the faintest chance against a large circus of invincible British machines and riders. Our unquestionable superiority was only equalled by the good-natured sportsmanship with which the outclassed cracks of other nations accepted defeat. Another feature of the meeting was the fact that Serafini on the Gilera would actually have licked the 500cc BMW if he had been as expert (or as careful) on wet roads as Meier is. The eclipse of British machines is notoriously due to two causes, which are interrelated. One is that we remain content to race on designs which were once supreme, but are now technically obsolete. The other, that firms cannot afford (or think they cannot?) the outlay to develop modern designs. It is becoming obvious that it pays such firms even less to ship parties out to Continental venues, and take a public hiding. The sooner they resolve either to abandon racing on the grand scale, or to evolve blown multi-cylinders, the better for everybody. Racing may pay when you win; it most certainly does not pay when you regularly lose. The Motor Cycle has repeatedly prophesied the coming of the present debacle, but to deaf ears. Fortunately, in the possibly more practical aspect of international competition—the German Six Days—we have an opportunity to prove that if our motor cycle industry is short of cash and slow in judgment, it is by no means decadent."— Ixion.

"THE RESULTS OF the Dutch TT put a new aspect on International races, for it is now obvious that the German marques will not have things all their own way this season. People who think that the BMW is the fastest road-racing machine will have to revise their ideas; in Holland the four-cylinder Gilera showed that it has the legs of the German machine. This was known last year, but the Dutch TT revealed that during the winter designer Taruffi has made the machine reliable and has increased its speed. The latest Gilera is much cleaner than the original models and the ugly bits and pieces have either been obviated or tucked neatly away. The frame has been altered considerably; the construction is tubular at the head, but the duplex down tubes are flattened at their lower ends to form mountings for the engine. A smaller radiator is used and the degree

of cooling is controlled by shutters. Circulation has apparently been improved by the inclusion of a water pump which is driven from the inlet camshaft. The oil tank is built as part of the rear mudguard and is neatly ribbed at the front. The breather from the tank takes the form of a spout, which protrudes at the rear of the mudguard. It will be remembered that the four-cylinder Gilera engine is set horizontally across the frame. It is of the double overhead-camshaft type, and as the cylinder heads face forward they are directly in the main air stream. The engine is, of course, supercharged and the blower is mounted between the carburettor and a heavily finned induction manifold. An unusual ignition system is used, for the current is generated by a vertical magneto which is driven from the gear box."

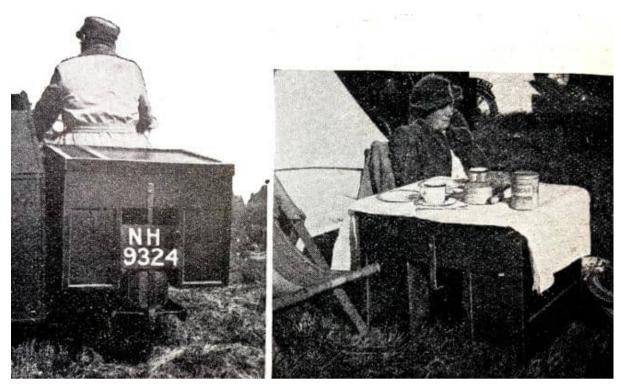
"HONOURS WERE FAIRLY evenly divided between the nations in last week-end's French Grand Prix. A French rider, Nougier (Magnat-Debon) won the 175cc event; the Germans Kluge (DKW) and Fleischmann (DKW) the 250cc and 350cc events respectively, and our own JH White (Norton) the 500cc class. An interesting point is that Ron Harris had himself brought over the Norton for 'Crasher's' use. The races were held at Rheims in threatening weather. The 175cc and 350cc categories were run off together first of all. In the.175cc class Nougier (Magnat-Debon) was an easy winner, finishing at an average of 64.3mph. Fleischmann (DKW) dominated the 350cc race, although EA Mellors (Velocette) was never far behind the leader. Fleischmann finished at 85mph, less than a minute in front of Mellors; FK Anderson (DKW) was third, and MD Whitworth (Velocette), the Brooklands rider, fourth. Afterwards the crowds watched the 250cc and 500cc events run off together. The opening stages of the 500cc class saw an exciting duel between the French rider Monneret (Monet-Goyon) and JH White (Norton). Monneret for a time was in front of White, but then the latter overtook his rival and gradually drew away. White won the race at 84.3mph, with Guérin second, and Lefèvre third. Kluge (DKW) had things all his own way in the 250cc class, and finished well ahead of Moore (DKW) and Simons (DKW). Kluge's speed was 77.6mph, During the meeting heavy rain fell."



"A fine impression of JH 'Crasher' White (Norton), who won the 500cc class at 84.3mph."

"THE GRAND PRIX OF EUROPE is being held next Sunday —organised by Belgium this year, and on the Grand Prix course at Spa in the Ardennes. It is a decided change having a European Grand Prix and so few British entries. In the 500cc and 250cc classes there are no British riders at all. The only British machine in the latter race is a Rudge to be ridden by a German. Seven Nortons are entered in the 500cc class—three to be handled by Germans, two by Finns, one by a Belgian and another by a Hollander. Britain's entries are in the 350cc race, namely Woods, Mellors, Whitworth and KA Burton, all on Velocettes. In this race Velocettes comprise nearly half the entry. Against them are the DKWs, the NSUs (one ridden by 'Crasher' White), two Saroleas and a couple of Nortons, one ridden by a Belgian and the other by a German."

"THE PATRIOTISM OF MOTOR CYCLISTS in the recent series of crises has had one important effect. They have a remarkably large number of friends in Parliament. This pleasing fact emerges from the debate on the Chancellor's decision to increase the licence duties as from next January. Member after member championed the cause of motor cyclists, and when Mr Jagger's amendment to the effect that there should be no increase in the tax upon motor cycles was put, no fewer than 135 voted in favour of motor cyclists. While there is to be no amelioration of the position, and motor cyclists must face up to the increase, the fact remains that never to our knowledge have so many taken up cudgels on behalf of motor cyclists."



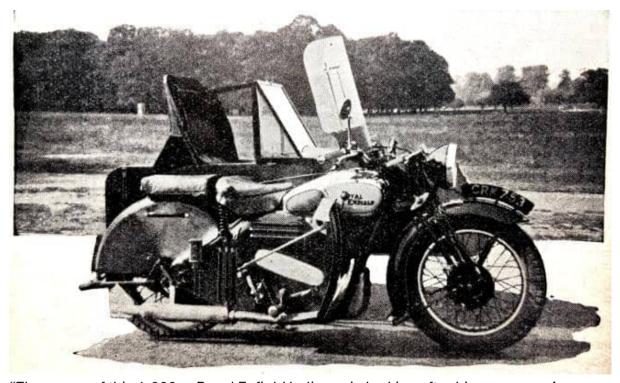
"This light, quickly detachable pannier is made of plywood and is used as a cupboard when inside the tent and as a table at meal-times. Its size permits many accessories to be carried, and the reader who made it says that during two seasons' camping it has proved most satisfactory."

"DOUBT REGARDING THE FUTURE of the Ulster Grand Prix is effectively dispelled this week, for the new Organising Committee of the Ulster Club has issued the regulations. Thus, we hope, an unhappy chapter has been brought to an end. It was unthinkable that the race which in the majority of British eyes is second only to the TT should lapse owing to monetary and other difficulties.

The discussions, decisions and counter-decisions of the recent past have drawn attention to the immensity of the task of organising a race of the Ulster's calibre. In addition, they have probably caused many in Ulster to realise afresh the value of the world's fastest international road race in both publicity and finance. Perhaps as a result the famous race will be on surer 'foundations'."

"OUR ANNOUNCEMENT THAT seven or eight new twins are being developed has caused a number readers to ask, 'Why Twins? Why not fours of even three-cylinder engines?' There are several answers. Perhaps the most important reason is that manufacturers know only too well the folly, commercially, of marketing designs that are ahead of public opinion. If they make a machine which is very 'advanced' the vast majority of the motor cycle public will hesitate to buy it, but will wait a year or two. Many cases come to mind of machines which have been 'before their time'. It is also notable that the most popular twin of the present era was designed in such a form that to the casual glance it appears to be a single. Thus there has been no need for the public to accept an unorthodox appearance. Like many readers, we do not believe the twin to be

the ultimate. Our view is that a few years hence the market will comprise an appreciable number of fours as well as twins, singles and, possibly, threes. We also hold the opinion that shaft drive will become increasingly common, but it has to be remembered that this form of transmission, unless produced in very large numbers, is expensive. Thus, in all probability, it will only be adopted for luxury-type models. While the fact that manufacturers are not embarking on numbers of new fours is disappointing to some, it is very pleasant to be able to record the great and unusual degree of activity there is on the design side. Design is definitely forging ahead."



"The owner of this 1,000cc Royal Enfield believes in looking after his passenger's comfort as well as his own, judging by the effective screening. The neat method of shielding the power unit is commendable, and the carefully arranged louvres prevent any pocketing of hot air around the cylinder."

"THE PROMOTORS OF the dirt tracks are rather perplexed that their gates are falling off quite substantially. This is rather odd, as the sport is, on the whole, magnificently organised, and is probably the most exciting spectacle in the world (with the possible exception of ice hockey), omitting only such shows as car racing and prize fights, which cannot be staged regularly at numerous centres for a small entry fee. I suspect the main reasons are the absorption of so many youngsters in defence work, and the un-settled political situation, which tends to make people keep their cash in their pockets."—Ixion

"YOUR CORRESPONDENT, Mr AJ Coleman, claims to have owned and ridden a model of every of every motor cycle made. I wonder if he has ridden a Zedel, a Forward, an Empire-Blumfield or a TDC? I have, and various other weird contraptions, including a

Perry Tricar. Here's luck to the old-timers.

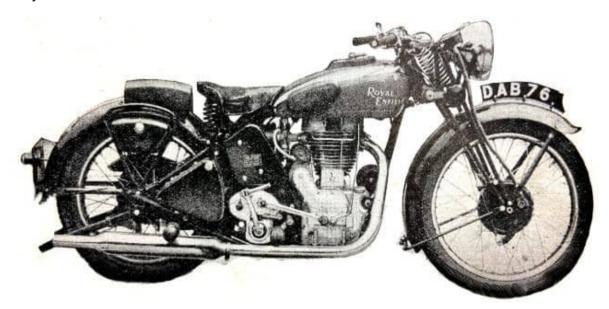
ERR Thomas, Shrewsbury."

"SEVERAL FINE LONG-DISTANCE records, ranging from 4,000 to 10,000 miles and 72 hours to 144 hours, were secured by a French Gnôme et Rhône machine at Montlhéry recently. Over the full distance the machine averaged the excellent speed of 71.81mph. Twelve riders were employed for the attempt, which occupied seven days. The records were made in classes D and E (750 and 1,000cc solos)...The long-distance record attempt by the 750cc Gnome et Rhone...was continued at Montlhéry, and according to the latest FICM bulletin the machine has now covered 20,336 miles in 288 hours—an average speed of 70.61mph...the Gnome et Rhone has successfully covered 50,000 kilometres. The total time taken was 456 hours (19 days), and the average speed for the whole period was 67.97mph. For the first 25,000 miles the average was over70mph."



"MODERNITY HAS ALWAYS been the keynote of Royal Enfield design and the 350cc ohv Bullet is undoubtedly among the out-of-the-ordinary machines of to-day. In brief, the interesting features of this Royal Enfield are a light-alloy cylinder and head, push-rod tubes in the cylinder casting, separate boxes that give total enclosure of the inlet and exhaust valves and a large air filter. Although this model is new in the sense that it was introduced at the last Earls Court Show, the familiar characteristics of Royal Enfield machines remain. Thus, the riding position is as excellent as the average rider could wish for town or open-road work. The saddle is well positioned and gives a compromise of height and distance from the handlebars, so that the rider's arms are not cramped; further, both handlebars and footrests are adjustable. A comfortable riding position breeds confidence in handling a machine, and the Royal Enfield excels in this direction with its conveniently placed handlebar controls and rear brake and gear-change pedals, all of which worked both smoothly and lightly. Starting with the engine hot or cold was always easy, and the method varied only to the extent that with a cold engine the carburettor had to be flooded. Then, as with a hot engine, it was merely necessary to

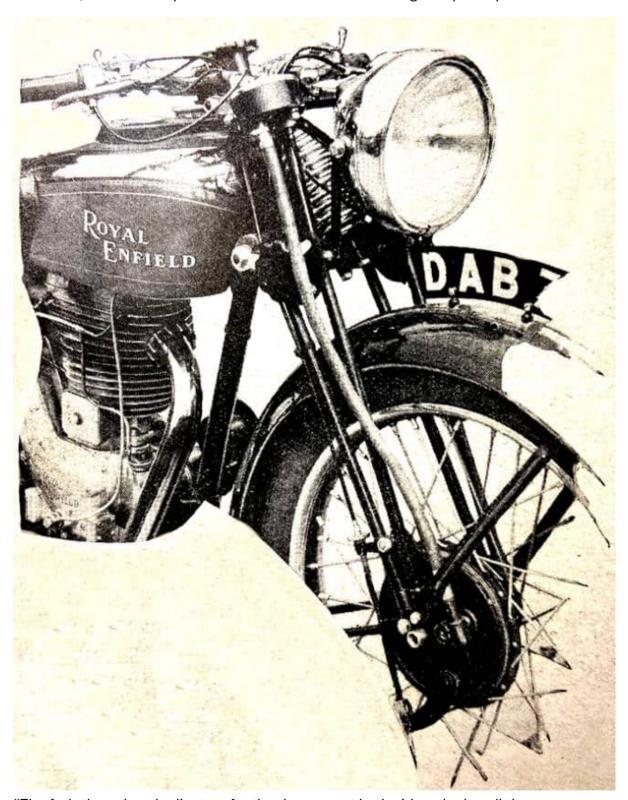
open the throttle about an eighth, place the ignition control at half-advance, get the piston approximately 'over' compression by using the exhaust-valve lifter, and, finally, give a gentle dig on the kick-starter. The engine would respond without fail, and after a minute or so for warming up, would tick-over slowly and regularly. For normal running, or for any conditions except idling, the engine required full ignition advance. Ethylised fuel was used throughout the test, and with this fuel 'pinking' occurred only if the engine were abused. The clutch was light in operation and free from drag, so that first gear could be engaged from neutral noiselessly, and the drive was taken up sweetly. Gearchanging was a joy with the Royal Enfield, for the pedal has a short travel and required only



"The Royal Enfield has. a compact and pleasing layout which does not impair accessibility."

a light, quick caress irrespective of engine and road speeds. Further, the intermediate ratios were absolutely quiet in operation. At all times the Bullet was well-mannered. In traffic the engine could be throttled down to a very low speed in any gear.with confidence, and on the throttle being opened the engine would pull away easily and smoothly. This was due largely to the fact that the transmission shock-absorbers were well up to their job, and also because the carburation was just right. On the open road speeds of to 60mph and higher could be held indefinitely without. any protest from the engine, and the only indication of high revs was a slight fork spring vibration at about 60mph. The ability of this engine to withstand full-throttle speeds indefinitely was extraordinary, though probably this characteristic is due in large measure to the light-alloy cylinder and head, which result in remarkably cool running. Maximum speed figures were obtained on a wet track and under gusty wind conditions; given better weather the speeds, at least in top gear, would probably be improved. Inter-related with the confidence-inspiring riding position of the Royal Enfield is praiseworthy handling. The steering is light at low speeds and riding feet-up at a walking pace required no

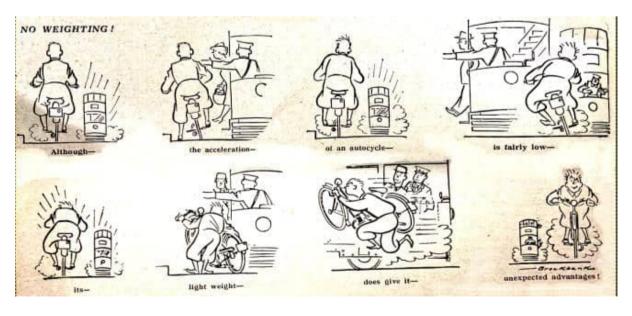
conscious balancing. Throughout the speed range the pleasant lightness of the steering remained, allied with a positiveness that made the steering damper superfluous. Road-



"The forks have hand adjusters for the dampers at both sides; the handlebars are rubber mounted."

holding was excellent apart from slight rear-wheel hammer at high speeds over bumpy surfaces, and fast or slow bends could be taken at speeds near the safe limit stylishly

and with certainty. The forks had a steady progressive action and by using the separate adjusters for each damper the movement could be controlled effectively for any conditions. Here mention might be made of the admirable rubber steering-lock stops fitted round the rear spindle lug, which prevent damage when full lock is used, yet do not make the turning circle too large. Under poor weather conditions when the roads were wet and greasy the good handling showed to advantage; even on the worst of tram tracks the rider felt at home and a skid was never experienced. The brakes were outstanding both in their power and their steady, almost resilient action, which gave a very fine degree of control. The figure of 38ft obtained for a crash stop from 30mph could undoubtedly have been improved on a fully dry surface. There was a noticeable absence of general mechanical noise, though the overhead-rocker gear was audible; the air filter must be thanked for silent induction, and piston slap was not noticeable even when the engine was started up from cold. The exhaust note was deep in tone, and though perhaps pleasant to the sporting ear, at high speeds it was liable to attract too much attention. A certain amount of oil leakage took place from the crankcase and the kick-starter, but the top half of the engine remained absolutely dry. The Royal Enfield Bullet has the unmistakable stamp of refinement, and to a pleasing appearance are added many worthwhile features. For instance, the timing-chest cover and gear-box cover have a highly polished finish, and the primary chain case is chromium-plated attention which facilitates cleaning. The large air filter is rigidly attached at the side of the saddle tube and is provided with an enamelled pressed-steel cover, which is detachable when three screws, that can be released with, say, a coin, are taken out. Three good tool bags are provided, and the neat instrument panel is a rubber, and therefore almost indestructible, moulding. Less obvious points include a large wheel adjuster for the front-brake cable and a circlip round the front stand mud-guard bolt, which prevents the retaining nut from being lost. This likeable machine is calculated to make a very strong appeal to the rider of discernment who likes a sporting performance allied to docile characteristics."



"AN INTERESTING RALLY was held at Banbury last Sunday—the annual gathering of the Association of Pioneer Motor Cyclists. This organisation, which was founded some nine years ago, is confined to those who were riding motor cycles previous to 1905. Twentyfive members, attended the rally, and with friends and visitors made up a luncheon party some 50 strong. The president, Mr JWG Brooker, was in the chair. What made the gathering especially interesting was the magnificent display of old-time photographs, collected and arranged by the Association's honorary librarian. Mr Harold Karslake. One lady is a member—Mrs Muriel Lord, who, when Miss Muriel Hind, was known throughout the motor cycle world as one of the most famous riders of the day. The toast of the Pioneers was proposed by Mr AB Bourne, the Editor of The Motor Cycle. There must, he said, be some mistake. He could not believe that they were pioneers—they looked too young! The only conclusion he could reach was that motor cycling was an amazingly healthy sport. As one of a later generation, he thanked the pioneers for their great work in developing motor cycles—which had enabled him, and thousands like him, to enjoy the finest sport in the world. Mr JWG Brooker, the president, announced that Lord Nuffield had applied for membership. He appealed to members to do their utmost to trace those who were riding before 1905, so that all the pioneers might be brought into the Association. Those who know such pioneers are invited to send their names and addresses to Mr JH Wylie, 38, West Cromwell Road, London, SW5."



"Members of the Association of Pioneer Motor Cyclists at their annual rally, which was held at Banbury last Sunday. The lady next to Mr JWG Brooker, the president, is Mrs Muriel Lord, the one lady member of the Association; as Miss Muriel Hind she was one of the most famous competition riders in the land."

"NOT ONLY IN ENGLAND and Wales are there ACU observed tests, but also in Australia, where there are the Auto Cycle Union of Queensland and the Auto Cycle Union of New South Wales. Down under they do things a little differently from over here. Can you, for instance, imagine one of our ACU officials travelling 1,140 miles on the pillion? Anyhow, that is what Mr Eric Hayman, an Australian official, has been doing in an observed test of a stock 250cc BSA. Except for two portions of the test, Mr Hayman observed from the pillion. First, the machine was ridden two-up from Melbourne to Sydney, a distance of 570 miles. This was at a 30mph average, and the consumption with the double load was 134 and 4,569mpg for petrol and oil respectively. On the following day a return trip was made (a useful distance per day, Mr. Hayman!) and the fuel consumption was 132mpg for the 1,140 miles. Later there was a two-up speed test during which the machine achieved 59mph and, still later, the machine was ridden 630 miles solo and registered no less than 201mpg!"

"LAST WEEK ANOTHER ambition was achieved and with it the Brooklands lap record was pushed up to 124.51mph. The man concerned was NB Pope, who has been connected with high speeds at Brooklands for several years. In 1935, almost exactly four years ago, Pope lapped Brooklands at over 120mph on his supercharged 996cc Brough Superior, the first man ever to do so on two wheels. He then broke the six-yearold lap record held by JS Wright. After his successful attempt he said that he would not be satisfied until he had wrung another five miles an hour out of his machine. At the next Brooklands meeting, however, EC Fernihough broke Pope's new record, putting it up to 123.58mph, and there the record has stood until last week. Pope has only seriously considered re-attacking the record this year, for in previous summers he has concentrated on road racing. During last winter the Brough was prepared for the attempt, but until the Cup Day meeting on June 29th weather conditions on 'Bemsee' days have been against really high speeds. On this occasion he was going really well when the front piston tightened up. The trouble was soon rectified and last Wednesday the weather allowed another attempt to be made. This time the Brough Superior was in fine fettle, and riding magnificently, Pope took the big machine round the Outer Circuit in the amazingly short time of 80 seconds, equal to an average speed of 124.51mph".



"Noel Pope had good reason to smile when this photograph was taken, for he had just broken the Brooklands lap record with his Brough Superior. With him is Francis Beart."

## But a few weeks later the Blue 'Un did some arithmetic...

"ALTHOUGH BROOKLANDS HAS BEEN CLOSED since early September, the track has been lapped by a motor cycle at approximately 127mph. This seeming riddle is easily explained. The news is red-hot and at the same time over three months cold. The rider who performed this feat was none other than Noel Pope on his supercharged Brough Superior. The occasion was the first week in July, when Pope lapped the track in eighty seconds to push up the motor cycle Brooklands lap record to 124.51mph. How then

does this 127mph business arise? Since I am writing this article it might be imagined that speedway racing enters into the question somewhere. It does. In fact, a rumination on speedways in general conceived a mental speculation which has now produced some interesting facts. The official lap distance of any speedway in this country is measured three feet out from the white line. Even in the early days of speedway racing it was realised that a winning rider lapping near the fence would be covering a greater distance than the official lap and, therefore, lapping at a higher speed than that announced. Logically, the same argument must be applicable to Brooklands. Let us take the case of the fastest motor cyclist round Brooklands to date. In his successful attempt on the lap record Noel Pope rode his big machine as near to the outer edge as possible in order to obtain maximum benefit from the banking. Round the Byfleet Banking he was only a matter of feet from the top of the track. Across the Fork, where the track takes a slight kink inwards, he hugged the lap-scoring box and Vickers sheds to within almost inches to get maximum gain from the slight curve. On the Members' Banking he was again only feet from the top, and down the Railway Straight there was, of course, no point in deviating from the outside course as this would merely add unnecessary distance. In all this I have the confirmation of FL Beart. Pope's recordbreaking lap, then, was made only a few feet from the outside edge of the track, yet his official speed of 124.51mph is calculated on the distance of a line 50ft inwards from the outside edge. What was the actual distance covered? To work it out on paper is impossible. The two banked bends are of different radius and then, past the Vickers sheds, is that slight kink inwards—slight to look at on paper, but a curve to be reckoned with when topping to 'hundred'. Had anybody ever actually measured the outside edge of Brooklands track? The question came between me and my sleep, so next day I telephoned the Brooklands Managing Director, Mr Percy Bradley. Without hesitation he warned me to arm myself with a pencil and then proceeded to give me not only distances round the outer and inner edges, but also the distances. for 10, 20, 30, 40, 50 (the official), 60, 70, 80 and 90ft lines, all top eight places of decimals. Service! So then it was just a matter of a little simple arithmetic. Between the distances round the inner edges of the track there is a difference of just over a tenth of a mile. Pope's time for his record-breaking lap was 80 seconds. Riding on the inside edge, his actual speed would have been 121.74mph. Had he been able to motor on the extreme outside edge his speed would have been 127.28mph. On the 90ft line (10ft from the outside) his speed would be 126.72mph. But for most of the distance, Pope would he outside the 90ft line; thus his actual speed must have been approximately 127mph."—Talmage

"TORRENS IS QUITE RIGHT in all he says about 250cc machines for sidecar work, as this type of machine ran give all the performance of a 500cc machine of 15 years ago. I have ridden various makes of machine; and am now the owner of a 1934 248cc Panther outfit. The weight of the sidecar is about 110lb, and the outfit carries three persons at all times, and can do 50 to 60mph with a full load. The steepest hill I have tackled has a

gradient of 1 in 3; while I have also traversed sections of last year's Scott Trial. I get 80 to 100mpg of fuel, and up to the present time I have covered 30,000 miles. My tax for a year is £1 17s 6d, and insurance (third-party, fire and theft), less rebate, costs £1 4s 6d. I think that with the increase in tax next year we shall lose a lot of our heavier machines, and then the 250 should come into its own. Personally, I think there is very little difference as regards power between a 250cc and a 350cc for sidecar work.

Thos Cooke. Wallsend."

"CLUBS WHICH WISH to encourage the 'ordinary' rider to take part in their events would do well to peruse the regulations for the Scarborough Club's freak hill-climb at Beacon Farm, Scalby. In order to even up the chances of competitors and to sustain interest, the first knock-out event is for those who have never gained an award (except touring class) on the hill in 1938-39. The second event is for those who similarly have never gained a first-class award, and the. third event is for any machine, subject to it having a current Road Fund licence and being ridden to the meeting. In three other events 'track machines' in any trim are eligible."

"DOES A MULTI SPOIL one's riding? A very well-known West Country trials rider says 'Yes!' More than that, he maintains that a multi makes its owner lax over maintenance. His views are that, because a multi is so flexible, the riders thereof can, and do, treat their machines as fixed-ignition, single-gear jobs, and thus lose the art of using throttle, gear box and ignition lever in skilful combination. On the maintenance question he points out that the vertical-twin Triumph and the 'Square Four' Ariel have so much more power and speed than the average man needs or uses that their owners keep on keeping on—they continue riding even if the power output has dropped appreciably, because (1) they do not realise the fact, and (2) the power is still adequate for their requirements. That a man who is a clever trials rider as well as a motor cyclist who rides for riding's sake should make these remarks is interesting, and also a little strange. I say 'strange', because in trials work a multi demands much more skilful use of the throttle than does a single, and probably more perspicacity as regards employment of the gears. There is no doubt that, so far as use of the throttle is concerned, a little trials riding on a multi is an education..."

"ROUNDABOUT TRAFFIC WORKING is to be introduced at the junction of Whipps Cross Road, Lea Bridge Road and the North Circular Road, Leyton."

"AMERICAN CLUB'S ANNOUNCEMENT: 'While our uniforms may seem to be a bit unusual, they nevertheless are very attractive. The shirts are Kelly green with red shoulder straps and Cossack sleeves, and we have white knickers, black boots, and green and red caps."



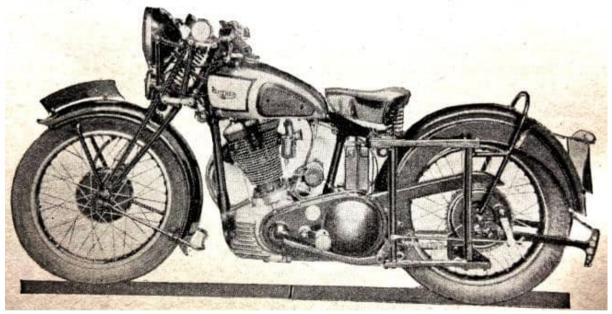
"The five-year-old expert: Five-year-old Belgian rider, Raymonke Dons, gives exhibitions of riding at various meetings."

"MANY INTERESTING FACTS emerge from the registration figures just issued by the Ministry of Transport. Well over a thousand more new motor cycles were registered in the first five months of this year than was the case last year, the actual figures being 24,619 and 23,222. The increase is due to the excellent total of 6,495 machines registered in May—the third largest figure for May since 1931. Exports, too, show a big increase. For the first half of this year the value of motor cycles, parts and accessories exported amounts to no less than £753,525 [worth about £62m in 2024] as against £708,144 last year. The industry is definitely on the up-grade. A significant feature of the registration returns is the large number of autocycles now being sold. Whereas in 1938 the total number of new under-150cc machines—this category is largely 'autocycle' registered in the first five months was 2,080, the figure this year is 4,049, or nearly double! The 250cc class remains almost constant with a total of 6,554. While solos of over 250cc show a drop of some 1,500—from 11,802 to 10,341—the over-250cc sidecar class reveals an increase from 2,354 to 2,769. Thus, among larger-capacity machines, sidecars are making still further headway. It has also to be remembered that many buy a solo machine and later add a sidecar. The only figure which is not too satisfactory is that of the total number of machines on the road. This for May 31st was 405,486. Figures, it is alleged, can be made to prove anything. It is, however, a fact that these latest statistics emphasise once again the importance of the sidecar, the safest and most economical passenger machine on the road. The number of small-engined machines also tends to bring out a point which even to-day is not sufficiently realised—that one of the most important features of motor cycling is its remarkable economy."

"AN UNUSUAL QUERY came into the office this week, but failed to stump our 'Man Who Knows Everything'. The fellows in a provincial workshop fell to arguing whether a motor bicycle has ever been built with a reverse gear. Our OC Queries instantly re-called two such machines—an Austin-engined Brough Superior and an obsolete four-cylinder Henderson. Both these models were equipped with reverse gear in the interests of sidecar users—the latter at option. I do not suppose that a reverse gear has ever been supplied definitely for solo use, but there is a legend in the North—I cannot youch for its truth—that a courageous fellow once drove -a Scott backwards from Skipton to Keighley. Many Scott enthusiasts will remember that at one time a Scott engine was liable to run the wrong way round; and the yarn is that an owner backed himself for a nice little wad to start his Scott engine in that fashion, and drive it so many miles on the public road. If one of the modern courtesy cops met a Scott proceeding backwards at speed, his courtesy would doubtless evaporate. It is many moons since a Scott engine backfired continuously on me, so they have probably modified the engine to eliminate this disconcerting trick...The AJS twin is fitted with a reverse gear for the export market, and a few disabled men prefer it (avec chair, of course) to the ordinary power-propelled cripple chairs. Mr Swan, general manager of Gray's, tells me how he bought a number of American machines without knowing that some of them were fitted with reverse gears, and that on occasions the discovery produced exciting consequences, as on the first trial the operator engaged reverse under the impression that he had meshed up first. One of his customers is quite enthusiastic about such a machine, as it is very heavy and is stored in a typical motor cycle shed of narrow width, so that reverse considerably lightens the labour of de-shedding the bus. This discussion reminds me that somebody wrote to me a few weeks ago, imploring me to persuade manufacturers to fit a sprag to their machines, so that a clumsy driver could restart on severe gradients without having to waste one hand in holding on the brake."—Ixion.

"DESIGNED BY MR GRANVILLE BRADSHAW; developed over the Yorkshire Moors by Phelon and Moore. This, briefly, is the history of a new and delightfully simple spring frame, which will be available on the 1940 model Panthers. Three different frames are being produced, each with the same type of spring-ing. These are for new 500 and 600cc side-valve Panthers which are now on ;test, a new ohv vertical single, and, from the technical aspect most interesting of all, a novel twin of Mr Bradshaw's design. No information is available regarding these new engines except that they will be on the market for 1940. Whenever a new feature is adopted, it is always interesting (and important) to know exactly what was in the designer's mind when he set about his task. This, in Mr Bradshaw's own words, is what he set out to achieve: (1) A form of springing that did not depend upon the rear spindle for its rigidity and strength. The spindle must be bridged, and the bridge pass over the wheel and take the load. (2) A design devoid of sliding parts, which (continuing to quote Mr. Bradshaw) no engineer willingly incorporates in any design if he can avoid them. (3) A frame which in lateral rigidity is

quite equal to a rigid frame; why should design go backwards? (4) The minimum number of working and lubricated parts. (5) A frame that does not call for a fancy price. (Rear springing is a necessity, not a luxury, in Mr Bradshaw's opinion.) (6) One that can incorporate in a cheap and simple manner some form of shock absorber or a spring of in-creasing 'rate'. (7) I realised, of course (says Mr Bradshaw) that lateral rigidity becomes impaired with age if a large number of working parts are incorporated. The new Panther spring frame has no lubricated joints at all. It comprises four sets of leaf springs arranged with vertical members in the form of twin deformable parallelograms. The ends of each spring are bolted rigidly to the verticals, and the rear wheel spindle is bridged with a member that acts as a lifting handle. Leaf springs were adopted because of the lateral rigidity they can afford. A leaf will not bend on 'edge', and the claim is that by using two sets of leaves on each side the result is even greater lateral rigidity than with a normal rigid frame. Originally all the leaves were 'waisted' in the middle to even out the stresses—in other words, each leaf was appreciably narrower at the middle than at the spring seats. Mr Bradshaw, however, decided to try Ferodo between the leaves, and, finding that he obtained the damping effect he desired, proceeded to waist only alternate leaves."



"Four sets of leaf springs are employed in the Bradshaw-Panther spring frame. These with vertical members constitute two deformable parallelograms."

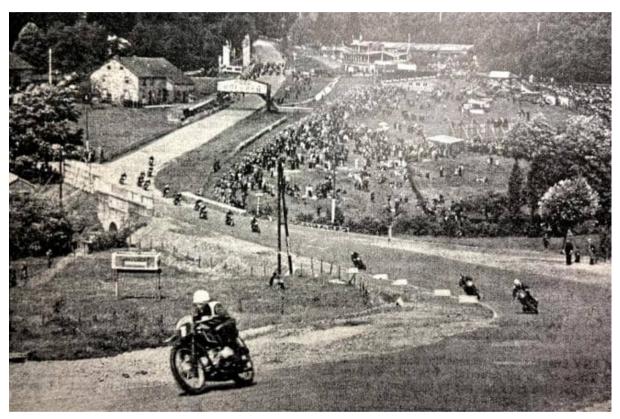
"AUSTRALIA WON THE THIRD speedway test, held at Harringay on Saturday, by a margin of ten points, gaining a well-deserved victory over England by 58 points to 48. Before the match Australia's plight was desperate. Having won the first two tests, England needed only one more victory to win the rubber; thus it was to be expected that the Australians would fight to the last ditch. Even so, I did not see how England could fail to win. I expected to see Australia fight a hard but losing battle. Instead, the Kangaroo treated us to one of the best and most amusing displays I have seen for a long time. By the interval,

the English Lion's tail had a kink in it. Thus heartened, the Australians rose right to the top, and by the end of the match the Lion's tail was tied in a knot."

"NOW FOR A FEW brief items: First, the Army is to enter teams in an International Army Trial, to be held al Spa, in Belgium, early in September. Secondly, the Middlesex tax authorities are demanding payment from the Amateur MCC on the score that the club badge is an 'armorial bearing'. The BMCA has obtained legal advice on the matter, and the demand for duty is being resisted. Were it decided that an ordinary club badge is an armorial bearing, clubs all over the country would be affected—tennis, swimming, cricket and football clubs, as well as those devoted to motor cycling. Thirdly, a 'Highways Protection Bill' is on the tapis. This seeks to give power to close roads to sections of the community—a power which, as the BMCA has pointed out in a letter to all members of the Committee considering the Bill, is already covered by the Road Traffic Act and the Road and Rail Act. The Organising Secretary of the BMCA ends his letter to the Committee with the sentence, 'I urgently submit that, so far from restricting rights, efforts should be directed towards facilitating the means of enjoying the amenities of our countryside, and repeat that the appropriate authorities already have full powers if the type of transport used prejudices the safety of others or is unsuitable for a particular road."

"FOR THE FIRST TIME in motor cycling history the magic 100mph lap has been achieved in an International road race. That formidable combination, Meier and the BMW, again proved superior, and in winning the 500cc class of the Grand Prix of Europe Meier lapped the Belgian course at 100.63mph. Great Britain was officially represented only in the 350cc class, and British riders, all Velocette mounted, took four out of the first five places, with EA Mellors beating Stanley Woods for first place by nine seconds. In the 250cc class the German DKW again proved that it has more staying power than the faster Italian Guzzi, and Kluge won comfortably. Competition during the whole meeting was extremely keen, and it was obvious that every camp was out to take home as many honours as possible. In each class there were at least two well-known marques capable of winning the races; in the 500cc class BMWs and Gileras were the chief rivals. Meier lapped at over 100mph in practice, but the Gilera riders only covered a few practice laps. 'Ginger' Wood practised consistently on the modified blown twin FN, but he did not consider that the acceleration of the machine was good enough to enable him to win. The main attention during the winter months has been paid to the 'blower'. It is now arranged on its side, in which position a better mounting farther forward is obtained for the carburettor. It was obvious that the 350cc race would be a duel between the Velocettes and the DKWs. During practice, both Kluge and Fleischmann tried out the new 350cc machine, which has a chain-driven rotary supercharger. Fleischmann made the best practice lap on one of these machines, but the DKW technicians are not yet satisfied that the machine will last for a long race, although it is stated that the new engine develops about ten more horse-power than the old one. For practising, the new

machines were fitted with an instrument panel at the side of the tank containing a rev counter, electric oil gauge and electric boost pressure gauge. These were being used to gain data about the state of the engine's health under racing conditions. Of the Velocette contingent, Mellors and Stanley Woods were using their TT machines, while the other riders bad KTT models. The spring frame of Franz Binder's machine is experimental; it has springs in place of the 'Oleo' legs used on the TT jobs. Three famous marques were there to do battle for the 250cc honours; they were the German

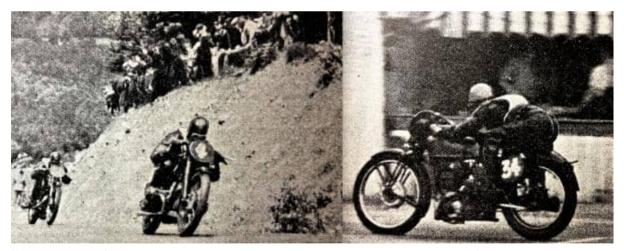


"Even in the first quarter-mile, Meier (BMW) has gained a considerable lead over the rest of the 500cc field. This fine view, taken from the new by-pass on the course, shows a typical scene at the start of a big Continental road race."

DKWs, and the Italian Guzzis and Benellis. The Guzzi engines were all supercharged, but the Benellis were replicas of the machine which Mellors rode to victory in the 1939 Light-weight TT. During the practising period a rumour had spread that the Gilera equipe were to go straight to Germany to attack the maximum speed record. It had gained ground because tucked away under sheets in the racing van was a machine which was partially streamlined. The real explanation of this machine is that Taruffi has designed it for road racing, but so far there has not been sufficient time to practise with it.

Saturday's practising and the weighing-out were both spoiled by rain. Those riders who turned out all complained of the slippery state of the roads, and the FICM stewards had to consider whether they would allow the race to be run if the weather conditions were bad on the following morning. Sunday, however, dawned fine, and thousands of spectators who annually come to see this race from the surrounding countries made

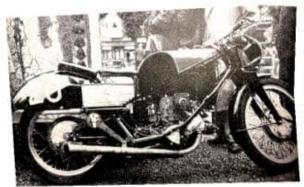
their way in the sunshine to the various vantage points. Part of the reason for the increased speeds in practice was that the course had been altered from previous years. The difficult hairpin bend immediately after the start has been by-passed by a banked road, which climbs up the hill in an easy turn. The alteration has made the course considerably easier, for the difficult bends up the hill to Burnenville are obviated. The rest of the course remains unchanged, and the fast bends between Stavelot and Francorchamps are still as difficult as ever. Massed starts were, of course, used, and only 30 seconds separated each class. The race was started by traffic lights, and on the green Meier (BMW) immediately gained a lead over everyone in the 500cc class. By reason of his last year's win he had the No 1 position on the starting grid. Behind him were the Gileras, Kraus on the second official BMW, and 'Ginger' Wood on the FN. A few minutes later the loud-speakers announced that the order at Burnenville was Meier, Serafini (Gilera), Kraus (BMW), Aldrighetti (Gilera) and 'Ginger' Wood (FN). Meier had already built himself up a lead, and as the race progressed it was obvious that he was not going to be beaten. His nearest challenger, Serafini, had an unfortunate experience early in the race. He came upon a slower competitor when tackling one of the fast bends. The slower man was on Serafini's line, and the Gilera man had to change viciously into third gear to reduce speed, and even then his offside footrest caught a protective bale of straw on the corner as he scraped through. Damage had been done in the gear change, and a few laps later he came in to the pit for a discussion with Taruffi. After losing nearly two minutes he continued. He was then in third place, behind Aldrighetti; Kraus, on the second BMW, was fourth, and 'Ginger' Wood still fifth. This order was maintained



"The 350cc winner, EA Mellors (Velocette), takes advantage of the slip-stream of H Bock (BMW) on the climb up to Burnenville." (Right) "There are plenty of opportunities for full-throttle work on the Francorchamps circuit. Here is MD Whitworth (Velocette) well down to it on the fast stretch past the stands."

until 20 laps, with Meier increasing his lead on every circuit, until he had lapped everyone except the two Gileras. Then at three-quarter distance Aldrighetti failed to

appear, and later it was learned that the Gilera engine had gone sick. This gave Serafini second place, albeit a long way behind the German. So Meier received the chequered flag, having made the fastest lap in an International race, and having made the Belgian race the fastest in Europe, with an average speed for the race of 94.95mph. The 350cc race was much more thrilling, for there were close scraps between the champions throughout the 234 miles. After a dashing start, in which EE Thomas (Velocette) led the pack up the hill, the race for the lead settled down to a duel between Stanley Woods and Mellors, on the Velocettes, and Wünsche on the DKW. Fleischman (DKW), who had been with the leaders on the first lap, had to take a wrong line on one of the corners, and he crashed heavily, damaging his left arm. He remounted, and after a stop at his pit at the end of the lap, set off in chase of the field. For four laps Stanley held his lead, but could not shake off Wünsch. Then, as it began to rain, Mellors overtook both Wünsche and Woods, to head the field. On the next lap, Mellors' and Wünsche were scrapping hard, with the DKW howling at Mellors' heels; Stanley had dropped back a little, and Grizzly (Sarolea), the Belgian rider, was lying a good fourth. Behind these four were a quartette of Britishers, all on Velocettes, and having the race of their lives. For lap after lap they raced round together, with each man slip-streaming the other, and the leader unable to draw away owing to this slip-streaming. For several laps the order was Binder, Whitworth, Thomas and JE Little; then Thomas and Little managed to slip in front of Whitworth, and this order held for a few laps, and then changed again. Meanwhile, Grizzly (Sarolea) increased his speed enormously. Slowly he picked up on Stanley Woods, and shortly before half-distance he managed to overtake Woods and hold third place. In this effort he made the fastest lap of the day at 94.59mph. But his spurt was wasted, for the Sarolea would not stand the pace, and later he retired. Shortly before half-distance Mellors had to give the German best, and Wünsche took the lead. As he came in to refuel he overshot his pit. This gave Mellors several valuable seconds, but as the Velocette required petrol and oil, while the DKW took on only petroil, Wünsche was away first. After the pit stops things started to happen rapidly. Wünsche began to draw away a little, and after another four laps had a half-

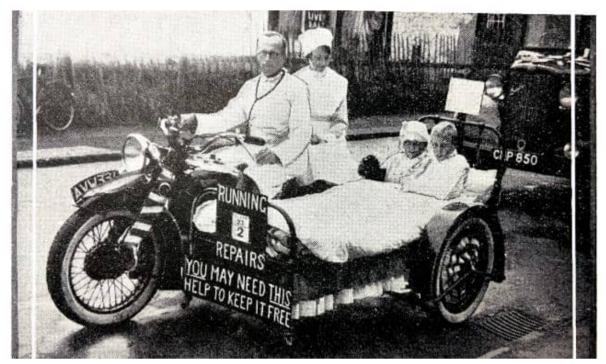




"Engine features seen in this view of the Gilera are the vertical magneto, driven from the gear-box, car-type carburettor, supercharger and finned induction manifold. The combined oil tank and rear mudguard is heavily finned at the front, and the seat springs

are let into the top of the tank." (Right) "A close-up of the latest four-cylinder Gilera, showing the double overhead-camshafts, radiator shutter control, and the unusual frame which incorporates tubes and pressings."

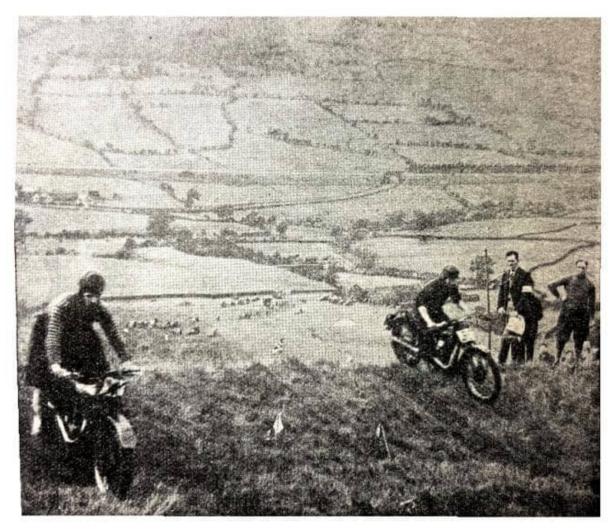
minute lead on Mellors. Fleischmann (DKW), who had ridden a superb race after his fall in his first lap, worked his way up into fourth place. But the roads were still very tricky with the intermittent showers, and Binder and Little both crashed on the far side of the course; fortunately neither of them was injured seriously. Thomas and Whitworth had become separated during the pit stops, and Whitworth, who made a lightning fill, lay fifth behind Fleischmann. With only two more laps to go it looked a certain win for Wünsche, but on his penultimate lap he picked up a nail in the rear tyre and the race was over so far as he was concerned. Mellors managed to stave off the challenge of Woods, who made a super effort in the last few laps and when they both got the chequered flag neither of them knew that they had taken first and second places respectively. The 250cc race was a repetition of the Dutch story, with the difference that the Benellis were also in the battle. Kluge (DKW) took the lead at the start, but he was very soon overtaken by Tenni, on the supercharged Guzzi. Retirements began early in the race, for one of the Guzzis failed to get going at all, and Winkler (DKW) punctured on the first lap. Tenni proceeded to leave the DKWs far behind, lapping steadily at 83-84mph. At the end of ten laps he was over half a minute ahead of Kluge. But, as in Holland, the pace was too hot for the little engine. This left the race in Kluge's hands, and although two Benellis, ridden by Rosetti and Soprani, were lapping consistently, they could not average the same speed as the German ace. After such a gruelling race the class winners were not at all keen to run in the short handicap, which was to have followed the International races, and the organisers wisely decided to conclude the meeting with the garlanding of the winners."



"Something more than armchair comfort was aimed at by Mr FA Spoil, of Witham (Essex), when he attached a real bed to his 986cc BSA sidecar outfit, and won a prize in a local carnival procession."

"WITH A TORRENTIAL RAINSTORM sweeping across the Cheshire-Derbyshire hills, it is not surprising that only about half-a-dozen clubs arrived in time for the 'count' of the Cheshire Centre Rally at Edale last Sunday. But the enthusiastic 'unattached' swelled the gathering and witnessed some hectic practising for the freak hill-climb which was to take place (it was hoped) later in the afternoon. If riders could get up the steep hill-side of Back Tor Farm, at least it was possible for the Manchester Eagle MC to carry on with the organisation. One of the difficulties on a wet day is that of getting anything like a decent start. Then, about half-way up the 300-yard climb at Edale there is a transverse gully (or sunken pathway) which involves a kind of nose-dive as a preparation for a short bit of about 1 in 2½—not so good on slime! The storm-clouds rolled by and there was a spot of warm sunshine for the 350cc event. But the rain had done its worst, and 'farthest up' rather than 'in the fastest time seemed to be the ruling for decisions. However, for the second runs the hill drained itself appreciably, and several made non-stop runs. As the event was run on the knock-out system, these riders were all eventually brought together and the meeting improved as it went on. Brought down to four riders in the semi-final, Twiss (349cc Triumph), who had been riding most consistently, beat AD Parker (349cc OK Supreme); and PC Reece (343cc Triumph), who had easily made fastest time up to the moment in the heats, beat J Ashworth (249cc BSA). Reece and Twiss, therefore, had to run the decider, and although Twiss made his usual good start he was caught and passed on each of the two runs allowed. Reece, indeed, appreciably improved on his previous time in his winning run. All this had gone on to the

accompaniment of sunshine, black clouds and heavy rain in varied selections. It was decided to modify the approach ledge of the gully so that it could be taken faster. It certainly improved matters for the unlimited cc event, but even so a number of competitors decided that one event was enough for them. All-round improvement of times resulted, and several people got well under 40sec, notably FV Lambert (498cc BSA), L Flowers (498cc BSA), WR. Colclough (494cc Douglas), H Ogden (349cc BSA), LJ Manley (349cc BSA), N Darlington (497cc Ariel), and, of course, PC Reece (343cc Triumph), who clocked what proved to be the best time of the day—29.4sec! Flowers, Reece, Manley and Darlington reached the semi-final, and Flowers and Manley, as the slowest pair, were sent up first to settle which one should be third. It was a neck-andneck scrap; Manley closed up on Flowers, but was just not able to even up the advantage of Flowers' bigger engine. Then came the Reece-Darlington contest. Reece was obviously on top of his form, but on each run throughout the event Darlington had improved a couple of seconds or so. If he could keep it up the final should be his. On the first run he got away first, but Reece caught him at the gully, where he got into difficulties. Reece clocked 33.6sec. Again, on the second run, Darlington made a quick start, but suffered a deal of wheelspin. This gave Reece the chance to pick up, and just as he was about to overtake near the summit his model spun round in the slime and the run was Darlington's. Did it beat Reece's time on the previous run? No! 35sec only. Reece had won again. RESULTS. Centre Rally: 1, Manchester Eagle MC; 2, Crewe and South Cheshire MC; 3, Manchester '17' MC; 4, Macclesfield &DMC; 5, Stockport and DMC (based on attendance and mileage)."



"Over the top: A glimpse of D Edwards (348cc BSA) and J Cox (248cc OK Supreme), who were paired in the 350cc event."

THE ARMY TOOK PREPARATION for the ISDT seriously. "It is 8.30am. 15 Army motor cyclists are. lined up with their machines. Each machine is examined with the thoroughness of the final examination in the old-time English Six Days. Unknown to the riders, marks are awarded for cleanliness, condition and proper maintenance. From 9 to 9.40 there is physical training—what is called the 'trained soldier's PT table', which is designed not to produce brands of Hercules, but men who are all-round 'fit'. As it is fine the PT is held out in the country, on the banks of a lake. Then a swim in the lake. Next come two hours' practising on the machines: riding through sand, follow-my-leader through dense pine woods, negotiating grass and gravel roads and tracks and practising rapid repair work. After lunch—from 2 until 5—there is road work by teams: a run of, say, 100 miles. From 5 o'clock to 8.30 next morning the time is the men's own, except that in this period they must clean their machines, fill them up and carry out any necessary maintenance. Marks are awarded for everything: machine condition, performance in the various types of practice, being ready with the machine on time, and so on. Any defects in maintenance, pump or tyre levers missing, making frivolous complaints about the

model and troubles occurring when with efficient maintenance they would have been avoided—these and similar things cause lost marks. Since the men have not been told about the marking there is nothing to put them on their mettle except their own personal keenness.



"To represent the British Army: Twelve men are at present undergoing special training in readiness for the International Six Days Trial. Nine will be selected to form the three teams and the remaining three act as reserves."

Fifteen started the course on June 5th. At the end of five weeks' training this number was whittled down to 12. The runs have not been go-as-you-please affairs. Part-way round the course (which has never been the same twice) each competitor would be stopped and told, 'You have a broken fork spring (or a broken chain or a puncture)', and would then have to put right whatever the stated fault was. Latterly there have been runs of 200 and more miles with petrol stops, time checks arranged on 'International' lines, trouble tests in between checks and everything in line with the actual Six Days' conditions. Among the training has been rough-stuff work over the Yorkshire moors, demonstrations of scrambling by WA West and Len Heath, plus criticism and suggestions by these two famous riders, riding round the road and 'Mountain' circuits at Brooklands under the eyes of George Rowley and Bert Perrigo, demonstrations of tyre changing by Dunlop experts, studying maintenance work at the factories concerned, a trip over parts of last year's International course under the guidance of Vic Brittain and riding at Donington. 'Why Brooklands? Why Donington?' it may be asked. The reason is to get the men accustomed to riding on closed roads."



"Rapid repair work is practised day after day. Here is a glimpse of a tube-changing test."

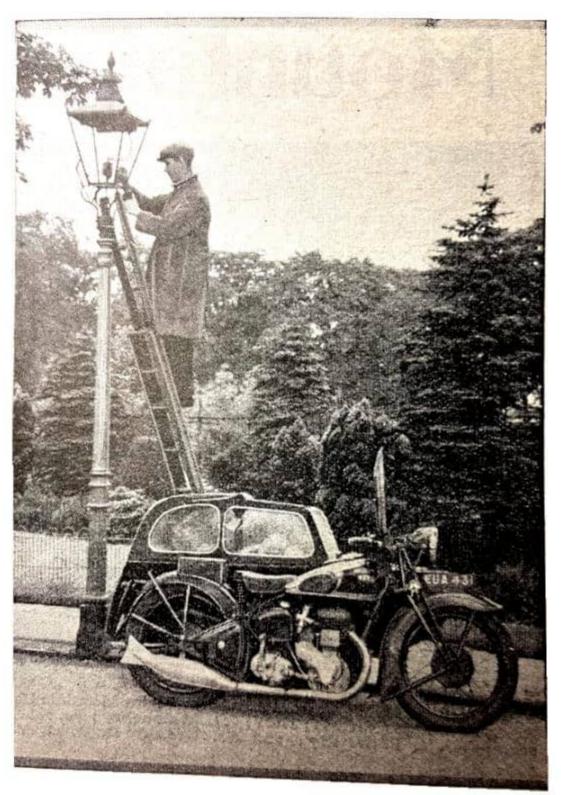
"A BLACK-OUT over a wide area of Southern England will take place on August 9th-10th."

"HAROLD DANIELL recently went to enlist as a Territorial motor cyclist, and was turned down on the score of eyesight—the man who holds the TT course lap record at 91.00mph!"

"QUITE A NUMBER of motorists seem to have no 'parking sense'. Vehicles are left in ridiculously dangerous positions even on main roads."

"REGARDED AS THE MAJOR motor cycle event in New Zealand, the Three Days' Reliability Trial was organised this year by the Pioneer MC. Three different routes were employed, and in addition to 30 observed sections there were easy-starting, braking and stop-and-restart tests, as well.as a final machine examination. Only just over half the entry completed the course. RESULTS. 1, R Frizell (Ariel), marks lost, 16; 2, B Wisely (Calthorpe), 35; 3, TR McCleary (Triumph), 41."

THE ACU HAS RECEIVED an appreciative letter from Mrs Elisabeth Gall, the wife of Karl Gall, who was killed while practising for the TT. After thanking the ACU and Mr Joe Craig, she says: 'Many other English fellow-sportsmen who were in the Island for the TT Races also put a lovely wreath on the coffin. Unfortunately, I have no opportunity to express my deep gratitude to all the many dear people and so I should like you to put a short note into your sports magazine if possible, so as to give my thanks to all English fellow-sportsmen. It is such a comfort to know that the sport is a link between us."



"The

modern lamp-lighter: This Ilkley lamp-lighter covers a wide area on his job, and finds a sidecar outfit excellent. Poser: How does he carry the ladder?"

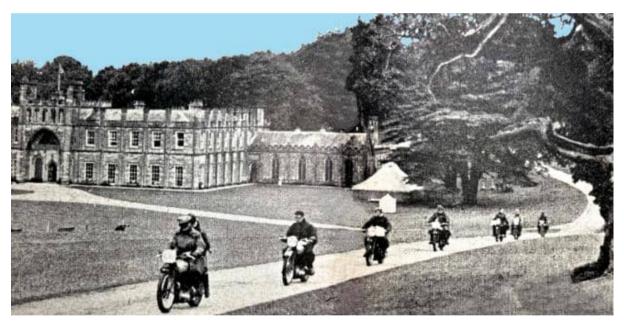


"And here is the modern nurse: Sister Dora E Thorne, of Finchley, who has covered 30,000 miles on her autocycle. She has been riding since 1937, and covers a wide area in her professional capacity, She pays generous tribute to the value of her small mount."

"THERE IS TO BE no Roadster Race—no 'Stock-Machine' TT. This decision was reached at a meeting between the ACU and the industry held in Coventry last Friday. The official communiquéé merely states that 'after consideration it was finally agreed not to proceed with the organisation of such an event next year'. While the decision is only in respect of 1940, it can be assumed that the proposal is 'killed'. One reason is the difficulty of ensuring that such a race shall be fair to all. The ideal, of course, is a race for machines exactly as sold to the public—for motor cycles taken straight from dealers' stocks and which, therefore, in the normal course of events would have been bought by the public. In these days when prospective purchasers of various popular models have to wait weeks for delivery it is obviously impracticable to select the machines in this way. Moreover there are certain makes with a very small output and few agents. The difficulties in this direction are immense—probably insuperable. Another objection raised is that a true stock-machine race held at the same time as the TT might, to use the words of one manufacturer, appear rather 'silly'. This, however, is not a point that carries much weight with us. We believe that the vast majority of motor cyclists would be extremely interested in learning how the various makes and models compare in highspeed reliability. Whether the speeds were low in comparison with the TT itself would

matter little, except that if they were it would reveal how specialised TT racing machines are! The result would be to depreciate the value of a TT win in the eyes of the public. When the ACU again discarded the principle of a standard-machine event (it is no new idea) on account of the difficulties involved, they approached the manufacturers with the proposal of a 'Roadster Race' open to machines on standard lines—machines which might only be altered from the regular specification in certain respects. A race of this type is, in our opinion, practicable, given suitable, clear-cut regulations. How much or how little the ACU's suggested rules permitted deviations from standard is not public knowledge. It is, however, a fact that a big point made against the proposed race was that the event would be neither a real TT nor a Stock-Machine TT. It was felt that the public would not accept the machines as being 'stock' and, therefore, the event would be of little value. There is much in this, but surely the answer is that the draft rules were permitting too many alterations? No, our view is that the race has been rejected became few manufacturers really want it."

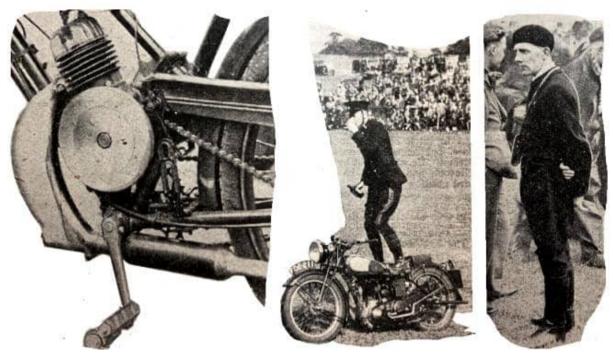
## 388,700 MILES in NATIONAL RALLY



"Nearing the end of the long trek. Competitors pass Donington Hall on their way to the rallying point in the grounds."

"YEAR BY YEAR the National Rally has grown in popularity, and has now achieved amazing success. This year the rallying point was, of course, Donington, and it is fitting that this should be so, for Donington itself represents one of the biggest romances in the history of motor cycling in this country. Thousands of people flock to this annual rally. This yearly mustering seems to have captured their imagination. They are prepared for all emergencies, and many of those who compete in the mileage competition seem to delight in giving themselves the most difficult task possible in order to be included in

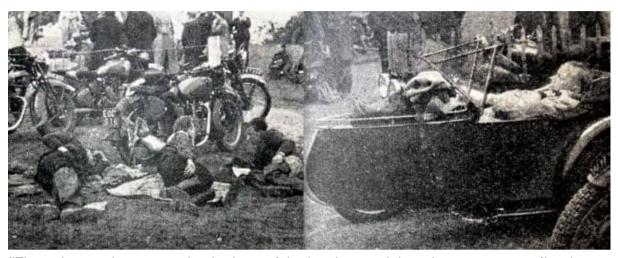
the final assembly. A record entry was received for the competition, and few, if any, were deterred by the poor state of the weather. It is curious that the ACU has rarely been able to pick upon a really good week-end, and this year was no exception. Almost all over the country, as everyone knows, storms raged during last week and persisted throughout the period of the rally. True, Sunday, to begin with, was not too bad a day in the Donington area, though there was considerable cloud about and no indication of really settled weather. Close on a



L-R: "A clever idea seen on Archie Cocks' HEC autocycle: folding footrests for use when the engine is doing all the work." "Some people have queer ideas about drinking! This DR. demonstrated his idea during the clever trick-riding display by the 48th Divisional Signals, TA." "This neat riding outfit caused much favourable comment—and the wearer knows the best way to carry his camera, too."

thousand riders took part in the mileage run, some of them content to cover only a short distance, others intent on crowding in as great a number of miles as possible into the time at their disposal. All manner of machines were used, big and little, old and young—solos, sidecars and three-wheelers—and from factories in several countries. At 8.45am on Sunday, the gates of Donington Park opened to receive the first of the arrivals, and from that hour until 11am a steady stream rode into the famous park. By the time the maroon sounded, signalling the time limit for arrival, a great concourse had assembled and were close set in their separate enclosures. It was extremely interesting to wander round and examine the various machines. It was just as interesting to observe riders and their costumes. There were all types; but the palm surely goes to the man who was arrayed exceptionally smartly in a blue uniform with blue cloth breeches, a blue cloth Eton-type jacket, riding boots and a blue beret! What his coat was like is not known, but,

with it removed, he was certainly the smartest male rider on the ground. This question of clothing is worth studying, for, to the uninitiated, it looks bad if everyone in a crowd of this size arrives in grease-stained clothes. It must not be assumed from the above that nobody other than the one specially mentioned was smartly turned out. There were very many who were well dressed, but there were also quite a number who were not. Many riders, after parking their models, rested on the grass and were soon



"The solo men have to make the best of the hard ground, but sleep comes easily when nerves and muscles are weary." (Right) "Why worry about bed when the sidecar is just as comfortable? A well-earned rest after the final check."

fast asleep; and this is not surprising, considering the distances some of them had travelled and the varying weather they had experienced. Comparing the condition of the finish-ing machines, one was struck by the difference in their appearance. Some were obviously well cared for by riders who possess pride in their ownership. Others, many of them just as new, were in a disreputable state, with the mud of ages on them, and oil freely distributed over engines, gear boxes and chain cases. One saw, too, really old machines that were the apples of their owners' eyes, and,, though the finish was not quite so glossy as it once was, dirt was not permitted to collect on any part of them. The sidecars are always interesting, and this occasion was no exception. You get the ultrasmart ones for one very favoured passenger; the ultra-sporting ones fitted for the sake of appearance; the big family jobs with obvious work to perform; and the home-made devices of all shapes and sizes, fitted with many strange gadgets designed to add to comfort and convenience. There was a Mercury sidecar on a BMW, the whole forming a particularly smart ensemble; and another foreigner was a DKW sidecar outfit which looked excellent. Another BMW was noticed with trafficators neatly mounted on each side of the rear number plate. Perhaps the oldest model of the lot was a 1902 Quadrant, which, with its antiquated carburation, diminutive valve springs and very oily belt-drive, formed a striking contrast to some of the pristine multi-cylinder machines surrounding it. There was an HEC motorised bicycle to which its rider, Archie Cocks, has fitted a sensible footrest arrangement. Two plates are attached to the bottom bracket. These

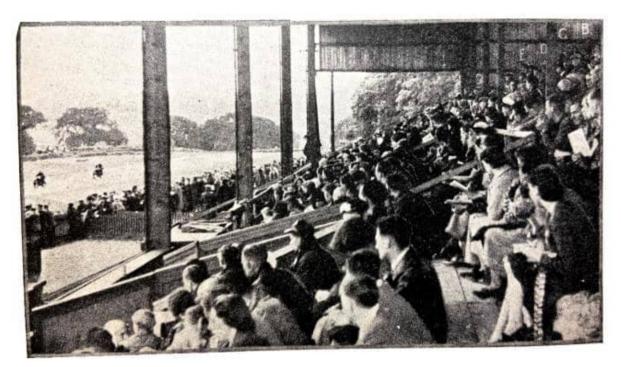
can be hinged outwards, so that one holds the right pedal in such a position as to be opposite the left-hand plate. Thus, the right pedal formed one footrest and the left plate the other, giving. a footrest position more favourable than that provided by the normal pedals. The two plates are automatically tripped up and folded by the act of pedalling. Well, there they were, though as is only to be expected, not all those who had planned got through to Donington. However, considering the entry, the percentage of finishers was quite high. Out of 891, only 173 failed to put in an appearance at the end. Of those who did finish, only four failed to qualify for an award. Gilt plaques were won by 259, silver by 312, and bronze by 143. Some idea of the magnitude of the



"A glimpse of the presentation of the awards, with Mr Gilbert Smith handing over one of the manufacturers' cups." (Right) "A group of competitors at the final control in Donington Park. Seated on his Square Four Ariel is L Stone."

event can be gleaned from the fact that the total mileage covered was 388,700. The aggregate mileage marks for competitors was 464.1. After the assembly was completed and some effort had been made at refreshment and so on, a gymkhana was held and attracted a good number of competitors. There was a pretty full programme, which included all the usual fun-making events. A good crowd was kept well amused until the racing started. This, of course, was in the capable hands of Fred Craner and his Derby Club comrades, and was run off with that slickness for which these worthies are noted...with the racing over the 48th Divisional Signals (Territorial Army) Display Team gave an exhibition of trick riding which was watched by an admiring crowd. It was a polished performance, and well deserving of the applause it was accorded. There remained only the prize distribution. It was a pity, in view of the trouble the ACU had gone to in order to arrive at the results and engrave the awards, that so few competitors were present at the distribution. Naturally some of them had to leave early for distant destinations, and all were tired after their many hundreds of miles. At the prize-giving, Mr JG Shields, JP, the owner of Donington, addressed the assembled crowd, the National Anthem rang out, and another National Rally had more to an end. CLUB

COUNT. Winners (ACU Inter-Club Rally Challenge Trophy): Harringay &DMCC; runners-up, Lea Bridge &DMCC; third, Leigh MCC; fourth, Tyldesley &DMCC; fifth, London Scott MCC."



"Huge crowds watched the racing on the Manufacturers' Circuit. This view was taken from the main grandstand."

"AS A MILEAGE COMPETITION the National Rally last week-end was an outstanding success. First, there was a record entry of 891. Secondly, the competitors concerned covered 388,700 miles and 23 of them gained the 'possible' of 811 marks by covering 729 miles in the 27 hours and visiting 41 control points. Thirdly, 259 competitors won gilt plaques by earning 700 or more marks. We congratulate the riders concerned on their feat, which, in view of the weather conditions many encountered, called for remarkable endurance and perseverance. Our one regret is that the rally was not more 'national'. It is true that the weather last week was not calculated to encourage the rank and file of motor cyclists to make long journeys to Donington, the rallying point, but the term 'National Rally' cannot fairly be applied when, of a great army of motor cyclists, only a few thousand are present. The rally last Sunday was worthy of a bigger crowd. More cooperation is needed. Given this and showmanship, the Rally can become the outstanding motor cycle event of the year."



"Machines packed nose to tail in one of the competitors' parks at the conclusion of the road competition. The number of handlebar windscreens fitted is interesting."

"I MUST OFFER MY apologies for troubling you with my grievance, but sincerely hope you can find space in your correspondence pages for the following protest, for so many good reports have been prevalent regarding the ACU National Rally that I feel that at least one of the winners of the over-350cc class should make clear that there were, and still are, many dissatisfied riders. First, as social secretary of the Bohemian MCC and an active committee man, I should like to know how the ACU arrive at their definition of 'gold' and 'silver' plaques, for the pieces of painted metal distributed for so much hard work and perseverance have drawn nothing but caustic remarks from all clubmen I have conversed with. However, coming to my own point, I was led to believe that the prizes in this National event were really worth an effort, but for some unknown reason the prize list was not made public, nor were the competitors informed what the prizes consisted of, before the event. Well, here is my case. I spent an industrious 24 hours working out the route with a total number of 811 marks, did 27 hours of really tedious driving through all weathers, paid 5s 6d entrance fee and 35s for petrol and oil, and then had 120 miles to ride home after the event. My reward consists of a silver vase, a set of chains, and a £1 credit note; and now our most noble 'Union' appeals to our 'sporting nature' to raffle the first prize between us. This event has now been held annually for some years, and inexperience cannot be honestly pleaded. It has been stated that much thought is being given as to how to arrive at a commendable decision with regard to ties. I think that this concentration should have been given before the event, and not after. Furthermore, 1 do not think it does our cause any good what-soever for riders to be filmed after such a day's riding, and then to be made a laughing-stock at various cinemas. At least the ACU could prevent this kind of bad advertisement.

TM Evans, London, NW5."

"FOR TWO SUCCESSIVE YEARS my Triumph 'Speed Twin' has enabled me to cover maximum mileage in the National Rally and on both occasions I have thoroughly enjoyed the ride despite bad weather. I do wish that the rally and sports and fun could be held a week after the mileage competition. I have never seen and of them. At Donington this year I waited until 2.30pm, and then decided that home in bed was the only sane place. In connection with the mileage competition 23 riders obtained 811 marks—but there are many others who obtained maximum marks and possibly deserved manufacturers' awards even more than the lucky 23. In case my meaning is not clear, it is obvious that riders from out-of-the-way places would find it impossible to include 41 controls in their route—and they would have farthest to ride home. Their reward—a gilt plaque—would be just the same as the 700-mark riders. I myself managed to get 40 controls in my route, which actually took about 20 (yes twenty) hours to plan. I should be very surprised indeed if anyone could get 41 controls starting at Leeds or any control within 30 miles. But even if this were possible the Scottish lads couldn't who a cup, could they? In conclusion, I must express my admiration of those who drove 'chairs' and three-wheelers over 700 miles, and I take off my hat to the lady rider of a Vincent-HRD, who in my humble opinion deserves better recognition for 'the finest performance of all.

## No 439, Leeds."

"ON SATURDAY EVENING I encountered one of the three motor cyclist battalions on the move. Since I was forging London-wards and there is only one motor cyclist battalion in the London Division—the Queen Victoria's Rifles, Territorial Army—it was fairly obvious as to who the lads were. Two things interested me particularly. First, the many sidecar outfits which the Queen Victoria's now muster reminded me very much of the military sidecar outfits I have seen in Germany. Secondly, when we published photographs and other details of the Norton sidecar-wheel-drive job the Queen Victoria's apparently had only one; last week-end I saw dozens."

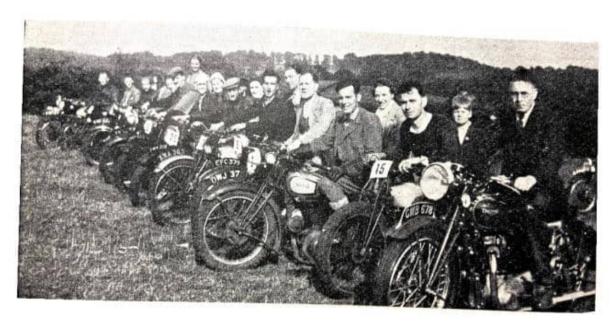
"REPORT OF A women's motor cycle club in the United States: 'Our meeting dresses are maroon, with white polka dots and white hems.'"

"AS I WAS DESCENDING the hill near Salisbury racecourse recently with a lorry laden with seven tons round timber, my brakes failed. A motor cyclist who was coming up the hill immediately grasped the position from my hand and hooter signals, and marshalled two cars which were blocking my way into safety, enabling me to career down the hill safely. Will you please convey through The Motor Cycle the appreciation of my mate and I to this motor cyclist, whoever he may be, for his prompt action in averting what would have been a nasty mix-up?

H Mason, Andover, Hants."

"WHILE THIS COUNTRY has decided that there shall be no 'Stock-Machine' TT, other nations are going ahead with new-type races. Next Sunday, in connection with the

Swedish Grand Prix, there is an Inter-Scandinavian Race limited to nationals riding unsupercharged machines. This follows upon the very successful Dutch national races held in conjunction with the Dutch TT. An interesting point is that the Inter-Scandinavian Race, which has only two classes-350 and 500cc—has attracted an even larger entry than the total for the three open international races. We do not suggest this is in any way indicative that a Roadster Race held in the Isle of Man at TT time would be well supported. The Roadster Race would depend solely upon the interest displayed by manufacturers—upon the degree to which manufacturers supported it with entries whereas the Inter-Scandinavian Race can be entered by any Dane, Finn, Swede or Norwegian. There is, however, food for thought in the fact that other countries are developing new types of races to be held in conjunction with their international events. The latter provide feasts of speed; will not the former act in some measure as the sporting rider's 'buyers' guide'? Our view is that races such as the Dutch national events and the Inter-Scandinavian Race may well provide better propaganda for the successful makes than even the open races. Consequently, we are delighted to see that of the 40 entries in the Inter-Scandinavian event no fewer than 27 of the machines are British, the remaining 13 being split up among Germany, Belgium and Sweden."



"The 'happy family' spirit is very evident in this cheerful group of the Sheffield North End MCC."

"I SEE THAT THE mpg question is once more in the limelight. Nearly everybody seems satisfied nowadays with round about 80mpg, but then, of course, the modern machine is so heavy. Certainly comparisons with the machines and roads of the 'twenties' are very interesting. I believe the Wooler (a flat twin), just after the War, raised everybody's eyebrows with a guaranteed 160mpg, and during a test recorded 212mpg. I found my chain-cum-belt 349cc Coulson-Blackburne giving 156mpg regularly (the machine weighed 198lb), and a 1921 16H chain-drive Norton (weight 252lb gave a steady

133mpg. Both machines were fitted (ie, the carburettors) with that superb piece of economy, the WSR variable jet. Later I found the Scott 'Flyer' (498cc) giving 83mpg—mine (1927 vintage) weighed just over 300lb. I think—and actually 95mpg with a pillion passenger. This on a mixture of city crawling and hilly country! The early Scotts reached 150mpg in observed tests and 88mpg with sidecars, using the famous Binks carburettor. By the way, when will the multi-cylinder two-stroke come into its own for modern roadwork? Personally, the twin two-stroke converted me for ever.

Pionero, Trowbridge, Wilts."

"WITH 29 ENTRIES, the Southport Club's programme last Saturday looked quite promising. However, there is usually something sent to test our fortitude, and on this occasion it was rain. Rain with a capital R, indeed! There rarely has been a morning that presented such a perfectly flat and smooth stretch of sand at Ainsdale. And probably more rarely still has there been one single hour when so much water fell steadily as it did shortly before the time to start. At zero time it was still raining, and the beach was covered with great pools of water. However, things had to go on. The programme started with the straight races, in which it was evident that neither Joe Moss nor Denis Parkinson (490 Nortons) was going to have things all his own way. W Billington proved not only to be quite at home on his usual 350cc Rudge, but was also going great guns on his less familiar Norton in the big classes. Bob Berry got his Brough Superior cracking long enough to lead the 1,000cc race very comfortably. Owing to the state of the sands, the championship race between the two fastest motor cycles and the two fastest cars had to be abandoned. Billington, (490cc Norton) won the five-lap invitation race, ploughing along through sheets of water in great style. Several of the likely people dropped out with drenched motors.



"Racing in the rain: Drenched riders and machines were a feature of thesand racing at Southport. The photograph shows the start of the five-lap invitation race."

The ten-lap scratch race was remarkable for the fact that under the prevailing conditions the pukka racers were fairly soon eliminated, leaving the not-so-new and not-so-snappy models to roll home and collect awards. Also remarkable, was the complete disappearance of every machine over 350cc! JB Moss (490cc Norton) led off at a good crack, closely followed by W Billington (490cc Norton). Then Billington got

round the Ainsdale corner on the inside and took the lead, to retire soon after with a very 'flat'" motor. At the half-way distance Moss suddenly planted both feet firmly on the wet sand and toboganned to rest with a seized rear brake. Meanwhile, the rest of the field had been going in spurts, sometimes doing a lap quite fast and then reappearing with engines spitting and banging, as water found its way into the works. S Anderton's twin Triumph was in this state, and eventually gave up after seven laps. And so all the bigger machines faded away, leaving J Wild (346cc New Imperial), sometimes fast and sometimes slow, to win by about two minutes from T Harrison's elderly AJS."



"W Billington (Norton), No 38, and A Bates (Norton), No 51, who finished first and second respectively in the invitation five-lap scratch race."

"I AM A LEATHER FAN, and in good company, too, for your photographs of professional riders show that they prefer the same material, and they should know! Leather allows perspiration to evaporate, and the skin does not become moist and clammy. It is very comfortable, and its appearance is always smart if kept clean and well polished. I wear a heavy pair of black leather lace-up knee-boots, with three-buckle throwovers at top. The thicker you get the better they keep their shape. Then comes a pair of tan leather breeches, and a waistcoat of the same material, with a tweed sports coat. A black skicap and good quality black gauntlets go well with the boots. I intend to add a tan leather sports coat and similar top-coat as funds permit. For wet weather, I wear a pair of black leather sea-boots, like a fireman's, but higher in the leg. A pair of rubber thigh leggings come down to the calf, and, with a black rubber com-petition coat, keep out all wet. If you get sea-boots the right size, and fitting close at the instep, they are quite

comfortable to walk in. An item of riding kit used, I believe, by most professionals, but not troubled about by many ordinary riders, is a good, wide belt. It is a fine support in riding. The usual style is made of webbing, but mine is of leather. Any harness-maker will make you one of any width you like, but get it thick enough not to crumple horizontally.

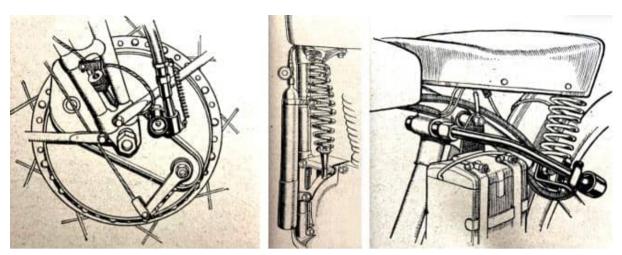
## C Edwardes, Blackpool."

"ON A RECENT SATURDAY afternoon I had just pulled my machine on to the grass outside Lytham to make a minor adjustment, when another young man dismounted and offered his help. We had the job done in three minutes. Before I could thank him he asked if I was the writer of a letter on riding kit in The Motor Cycle. I said 'Yes,' and asked how he guessed. He said, well, the letter was written from Blackpool, and that wasn't far away, and my togs agreed with the description I had given. He said he always cut out the items that interested him and-had kept my letter as he also was keen on leather. That was obvious, but if I am a leather fan he was a leather 'king'. He was returning now to Glasgow after a south-country tour, but last year had spent his holiday in Norway, where leather clothing is very popular, and where he bought most of his present kit. He had a tan chamois-leather shirt, with the sleeves rolled up (it was a warm day), no gloves and no head-covering. His breeches were tan leather, but thicker and of better stuff than I'd seen before. They were kept in place by a three-inch leather belt, and had four belt-loops. His lace-up knee-boots were the heftiest I've come across. The leather was pebble-grained, rather a dark brown, and very thick. The legs fitted very well, but the feet were extraordinary, the toes being actually square and coming up in two blunt corners like a box covered with leather. The soles were exceptionally wide, and were decorated with heavy steel plates at toes and heels, and with a row of large, squareheaded nails set flush with the edges of the soles and close together. At first I was rather taken aback by these boots, but every time I looked at them I liked them better. He produced from a pannier bag, and put on, a tan leather jacket, double-breasted and similar to a lounge jacket but smarter; also a brown leather ski-cap and gauntlets, the same shade as his boots. 'I have a leather overcoat for cold weather,' be said, 'but I use one of thin oilskin over my jacket in heavy rain. Here is a pair of leather seatless trousers which avoid the need for rubber thigh leggings.' He unfolded and put on this garment of his own design. The legs finished about three inches below the tops of the boots, and were held there by a strap and buckle. A similar strap tightened the trousers at the waist. They were undoubtedly waterproof, being a thinner edition of the pebble-grained leather used for the boots. His breeches were much less baggy than ours at the thigh, so that these overall trousers did not have to be wide; they sat close to the leg and looked very smart. My friend said that for winter riding he used chamois leather underclothing, also brought from Norway, as he found it smoother and warmer than wool. Can any reader inform the rest of us if such underclothing can be bought here? C Edwardes, Blackpool."

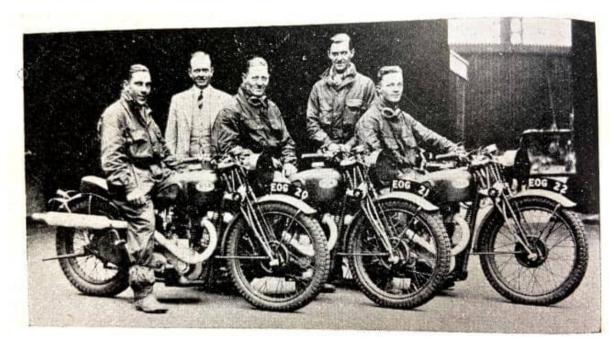
"I HAVE READ with considerable interest the recent letters on all-leather kit for motor cycling. As I am also a leather fan I certainly agree with Mr Edwardes as regards the undoubted smartness of leathers, and, like him, for wet weather I wear a light black competition coat over the kit, and this, with rubber thigh-boots, keeps me quite dry. I also agree with Mr John that there is 'nothing to beat leather', but definitely think that purely horse-riding breeches and boots are unsuitable on a bike, as they are obviously not made for this purpose, and give a fellow the appearance of being dressed for the wrong sport. I am surprised that more motor cyclists do not choose all-leather kit, as after some years of experience I find my own rig-out both smart and satisfactory. It consists of well-fitting black lace-up knee-boots, smartly cut black leather breeches, and a stout double-fronted lancer-style black leather jacket, leather gauntlets, and skicap with a large peak.

## 'Ariel Square Four', St Austell, Cornwall."

"NORTONS HAVE PREPARED machines for members of an Army team to use in the forthcoming International Trial. These models, in their Service green, are well turned out, and look exceptionally businesslike They are perfectly straightforward, but much thought has been expended on the subject of carrying spares and equipment. To this end the metal tool boxes are considerably larger than the standard pattern, and are capable of holding a full kit of tools, puncture repairing materials, and so on A spare fork spring is carried, and it is held by a metal strip bolted to the front tank lug and a small bracket on the front engine plate. Just alongside is the air bottle for tyre inflation. This is in a carrier at the base and held by a clip at the top on the front down tube. Another accessible item is the wheel brace, which is thrust into a lug below the saddle, while the other end is secured by a spring clip on the saddle stay. Front wheel removal involves, inter alia, the detachment of the speedometer cable, and this is made simple by providing a light spring which holds the drive in place, but which permits instant removal of the cable from its housing on the brake plate. All control cables are duplicated, and the spare cables are very neatly taped and wired to those which are normally in use. In the event of a broken wire it would be a matter of moments to remove the broken cable and replace it with the spare one."



L-R: "A light spring holds the speedometer drive cable in place. Note the spare brake control wire." "The compressed air bottle is attached to the front down tube of the frame and a special engine bolt is used to retain the spare fork spring." "The wheel brace fits in a frame lug below the saddle and is retained by a spring clip on the saddle stay."



"Men and machines in the Army's BSA team for the International Six Days Trial: L/Cpl AC Doyle, L/Sgt FM Rist, Sgt J Acheson and Pte S Wood; the machines are Gold Star models. With them is AE Perrigo, the famous BSA rider."

"NO FEWER THAN 61 British motor cyclists have entered for the International Six Days Trial, which is to be held in Germany from August 21st to August 26th, with headquarters at Salzburg, south-east of Munich. With many readers no doubt the first reaction to this will be that the British entry is smaller than usual. The fact is, however, that it is larger! The last time the Six Days was organised in Germany there were only 53 entries, while on the previous occasion the number was 56. Moreover, these figures included entries from Eire and Northern Ireland, neither of which countries is being represented in this year's event."

"THERE ARE OVER 10,500 motor cycles in use in Hungary."

"A BIG ROAD RECONSTRUCTION scheme is to be undertaken by the Spanish Government."

"SLIPPERY ROAD SURFACES in Bristol will probably be improved in the near future, following RAC action."

"In order to relieve the holiday crush, 5,000 employees at Fort Dunlop have been given their holidays this week instead of the usual first week of August."

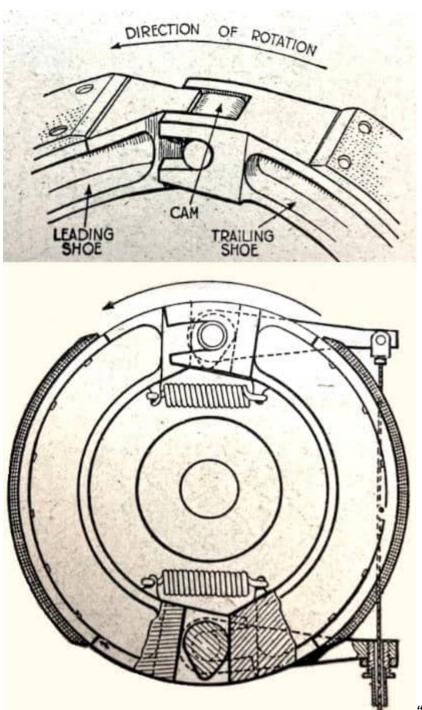
"FOUR HUNDRED MILES of the projected Berlin-Rome autobahn have been completed in Germany."

THERE ARE NOW 50,000 permanent R.A.C. signs in all parts of the country. Only one sign has ever been found to keep clean month after month. Passing cows, it was discovered, licked it!"

"NEARLY THREE MILLION pounds worth of motor spirit came into Britain in July. The biggest proportion of this fuel—£1,300,000 worth—came from the Dutch West India Islands...According to the latest returns, motor spirit valued at £1 was exported from Britain to Eire in July."

"BRITAIN'S HELMETED YOUTH wouldn't look twice at a motor bike that they couldn't rev up like a thousand humming demons."—A daily newspaper. "

"A TWO LEADING-SHOE brake has been designed by Mr J Hingham, of Ferodo, which lends itself particularly well to motor cycle internal expanding brakes. There are two cams diametrically opposite, instead of the usual arrangement of one cam and one pivot pin. Each cam is pear-shaped, and operates only the leading shoe in relation to the normal direction of wheel travel. The shoes at their pivoting ends are forked, and bear on the cans spindles at both sides of the cam. Hence each spindle forms the fulcrum pin for the preceding shoe, and the reaction thrust of the cam is balanced. By this means, only the actual braking force of the shoe is transferred to the carrier plate. At the fulcrum end of each shoe is a suitable cutaway to clear the cam and the leading end of the other shoe. The cam levers operate inward to the centre when the brake is applied, and the braking force is compensated by the simple means of connecting the control wire to one lever and using the other lever as the abutment for the outer casing.



"Details of the new

Billingham brake, showing the double-cam operation."

"A NEAT AND USEFUL design of pannier bag, which folds flat when not in use, has just been introduced by Godfreys (366-8, Euston Road, London, NW1). The pannier is made of black Rexine, and has a stout backboard with a hinged base. The whole is encircled with two strong leather straps, and the fittings supplied ensure easy attachment to the majority of machines without any drilling. The panniers are designed so that they will accommodate attaché cases, and cost 26s a pair. Supplied separately, each pannier costs 13s 9d. The de luxe model is similar, but includes black Rexine attaché cases, and

the containing bags are provided with large gussets which give easy access to the bags; each bag has a lock. The price of the de luxe model is 37s 6d per pair (19s 6d each)."



"Godfrey's de luxe pannier includes an attaché case and is provided with a lock." (Right) "The standard panniers are well made, although comparatively inexpensive."

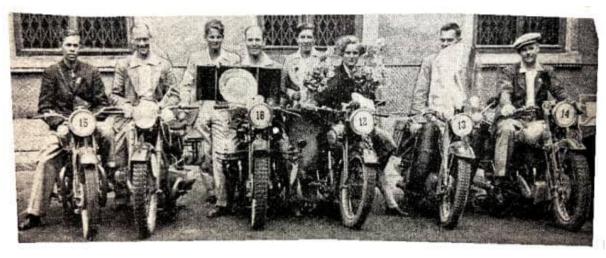
"SMART RUBBER RIDING BOOTS, which can be easily sponge-cleaned, are made under the name 'Adjutant' by the North British Rubber Co. Used with riding breeches, they are excellent for bad weather riding. The price of these boots, which are available in bright black or brown, is 21s a pair. A rubber boot of interest to pillionists is the North British Hy-an-dry' model. They have a soft extension top to cover, the knees, with an adjusting strap. They cost 9s 11d a pair, and the finish is bright black."



"The Hy-an-dry rubber boots for lady pillion riders . (Right) The soundly made Adjutant riding boots."

- "THE NEW ITALIAN ban on visitors to the Dolomites applies only to the Province of Bolzano, says the RAC. Foreign visitors to the Province must stay not more than 48 hours."
- "AFTER THE BEGINNING of October manufacturers have agreed not to fit to a new vehicle a horn which will produce a note over 100 phons loud."
- "EACH MEMBER OF Warwickshire's police force made 38.6 prosecutions on an average last year, compared with 7.3 in the rest of England and Wales."
- "FIFTY-SEVEN POLICEMEN have been withdrawn from traffic-point duties since the beginning of 1938. They have been replaced by traffic-light installations."
- "OUR KING AND QUEEN came through our city and we had the great honour of escorting them...it was a day that will never be forgotten.'—Announcement made by the Roar-bi MCC, Fort William, Ontario (Canada)."
- "AMERICAN CLUB'S ANNOUNCEMENT: 'We are either going to blossom out with the classiest uniform east of the Hudson, or else put on a humdinger of a field meet."
- "EASTBOURNE PARKING OFFICIALS, as a result of RAC enquiries, have been reminded that motor cycles are allowed to be parked in the car parks. This follows complaints from readers."
- "AT THE RECENT Rover Moot at Crieff, in Scotland, were motor cyclist-rovers from as far away as Paris and Lille."
- "A MOTOR CYCLIST has been fined for riding his machine solo when it was, in fact, insured only for sidecar work. All know, of course, that the insurance on a sidecar outfit is half that of a.solo, but does everyone realise that not only is a motor cyclist uninsured if he takes off the sidecar but also he is liable to a fine up to £50 and/or imprisonment not exceeding three months, and automatic suspension of his licence for twelve months?"
- "AN INTERESTING METHOD of determining the temperature attained by various parts of an engine has been developed. At the Institution of Automobile Engineers' laboratories there is a motor cycle engine apparently finished in bright purple!. The 'purple' consists of temperature-sensitive paint. What happens is this: the cylinder and cylinder head are painted, the engine is run, and suddenly, as the appointed temperature is attained, the paint changes colour. The change remains permanent after cooling, and by varying the 'mix' the temperature at which the change takes place can be varied. Thus it is possible to obtain a clear and permanent record of the temperatures reached by the various parts."
- "NO MORE ORDERS can be accepted for 1939 models!' For some time past this has been the case with a number of motor cycle manufacturers. The demand for motor

cycles has exceeded the supply, and since early in the year many a firm has only accepted orders on the basis that delivery could not be effected for a month, two months, or even three. What are the reasons? There are many. The season started comparatively slowly, and there is little doubt that motor cycle manufacturers were unprepared for the demand that was to occur later. Also, work of national importance made big inroads into the production facilities of various makers, as well as adding to the difficulties of the factories, and there were unusually large orders from abroad. There could have been a miniature boom in new motor cycles if only manufacturers had been able to keep pace with the orders, let alone go strenuously in search of them. However, it is no use stressing the fact that this year large numbers of motor cyclists and potential riders have been disappointed regarding the purchase of new machines; the questions are: 'What will be the position over the 1940 models?' and "Will manufacturers be early in production?' At present there are not many signs of the latter. Will they plan their production programmes on a large or small scale? Reduced unemployment, good pay and, in many trades, security of tenure such as has not been known for years, are the causes of the increased demand. Motor cycle manufacturers have a big opportunity if only they can grasp it."



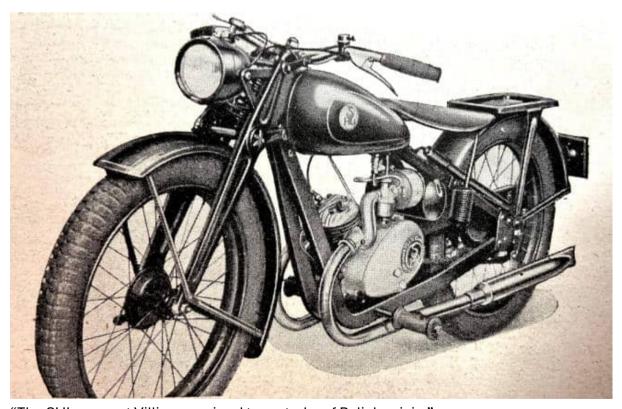
"These members of the International Motorcyclists' Tour Club gained second place for Great Britain in the FICM rally which was held at Zurich on July 9th. They averaged 648km. each and the figure of merit gained by the team was 4,536. Holland was first with 37 competitors and an average of 41 km. France was third and Italy fourth."

"PEOPLE WRITE TO *The Motor Cycle* for advice from all over the world. This week, enthusiasts from Melbourne and Perth (Australia), Los Angeles (California), Baluchistan (India), and Rotorua (New Zealand) have written—a typical post-bag."

"ON A LONG RUN, how many miles do you usually cover before your first stop? I raise the point because so often one hears the remark that no motor cyclist ever travels 50 miles without a halt. Of course, if you are out for a breath of fresh air on a week-day evening, or a potter-type tour, frequent stops are understandable. On the other hand,

there are, I believe, many who, like a certain member of the staff, habitually reel off the first 100 miles of a long run non-stop."

"MOTOR CYCLES ARE becoming increasingly popular in Poland, where, as in many Continental countries, lightweights predominate mainly because of taxation advantages. The largest producers of small machines are Huta Ludwikow of Kielce, who market the SHL machine fitted with the Villiers 98cc engine and three-speed gear unit. This unit is now to be produced under licence at the Kielce works. The Villiers unit is neatly housed in a robust duplex U-section girder frame, which provides a layout similar to that of British machines. Steel pressings are also employed for the fork blades, the mudguard stays and lamp brackets. A large welded-steel tank of pleasing shape blends well with the general lines of the machine. Long tension springs support the pan-type saddle and provide a range of movement which, in conjunction with the wide-section tyres, should make the SHL one of the most comfortable machines of its class. The Villiers direct-lighting system is employed, and other features include a large air filter and a neat cylindrical tool bag. This little machine is sturdily constructed, has well proportioned lines, and is reported to handle particularly well."



"The SHL—a neat Villiers-engined two-stroke of Polish origin."

"ANYONE NOT CONVERSANT with motor cycles might well be excused for wondering whether the modern solo machine is merely a vehicle of sport. Examine almost any machine; there is no luggage accommodation—nowhere even for carrying a parcel. Many regret that the luggage carrier is regarded as a thing of the past, and in makers' catalogues can only be found mentioned in small type as an optional extra. Instead of

the motor cycle growing in utility, in more than one direction it has become from the touring angle less useful. The sole accommodation provided as standard is one or more tool boxes, and these often will not accommodate the repair outfit, spare sparking plug, chain rivet extractor and chain spares that should be carried in addition to the tool kit. Happily, accessory firms have come to the tourist's rescue with excellent pannier bags which the rider can fit. No doubt there will always be an important market for such worthwhile fittings, but that is not much of a reason for the entire lack of luggage and parcel accommodation on the modern solo. It is high time that manufacturers became a little more practical. Or is it that the average motor cyclist is so concerned with what he conceives to be a sporting appearance that it is he who is unpractical? Whatever the reason, the present vogue is stupid."



"GRAND PRIX DAY IN SWEDEN is like Derby Day in England. The same holiday atmosphere prevails and there are all the side shows, family parties, picnics and vendors that one finds on Epsom Downs. Last Sunday, after a stormy practising period, the sun played its part in making the day a national holiday, for it blazed out of a cloudless sky. Only a fairly stiff breeze saved the day from being almost too hot for racing. Under these conditions thousands of people in every form of transport augmented those who had camped all night round course. The police estimated that there were 20,000 cars in the car parks, while a similar number of people had travelled to the course by train. All attendance records were broken, for the crowd eventually numbered about 150,000, with over 25,000 visitors from friendly Denmark. The interest was well divided between the Inter-Scandinavian and the International races, for while the crack riders of Europe were competing in the International events, the people were naturally very interested to see how their own men would perform on the very fast Saxtorp circuit. The course at Saxtorp consisted of nine miles of flat roads, with long, straight stretches where high maximum speed is all-important. In order to make the course more difficult, loops have been made which form tricky bends, but in spite of this the fast 500s lap at well over 90mph. Racing was due to start at one o'clock, but a little before Meier, the German BMW rider, did a demonstration lap of the course in an Auto-Union Grand Prix racing car, and, then a procession of various types of car manufactured by Auto-Unions did a lap of the course while the loudspeakers pumped out sales talk. An enterprising local agent staged a similar show with motor cycles some people realise the sales value of a vast crowd interested in motor cycling and motoring. Soon afterwards their Royal Highnesses Prince Bertil and Prince Carl arrived, and then the Inter-Scandinavian riders wheeled out their machines on to the



"The happy party in the Velocette pit before the races with the machines lined up ready. Thomas and Whitworth are in the picture. The American 'dough-boy' hats are official pitattendant wear."

starting grid. There were two classes, 350 and 500cc, and in each there was great rivalry between Sweden, Denmark, Norway and Finland. British machines were popular in each class. Director Axel Lofstrom explained to the competitors through the microphone in four different languages that the 500cc class would be sent off one minute before the 350s, and that each class had to cover 10 laps. Then, point-ing with his flag to a board with the numbers from one to ten on it, he counted back the seconds, and at the word 'Ga' the field got away in a roaring bunch. At the end of the first lap the Finns were overjoyed because 0 Brandt (Rudge), Finland, was leading with P Sirkia (Norton), Finland, second. However, Brandt heeled the Rudge too far over on the last bend leading into the starting straight, and the machine spun round like a top. Several men had gone by before he could remount, but at the end of the second lap he had worked his way back into third place behind Folke Larson (NSU), Sweden. Brandt's fall must have done some damage, for he began to drop back steadily. His place was taken by Berth Schmidt (BMW), Sweden, who gradually overhauled Larsson. On the seventh lap Schmidt made the fastest lap of the races and took second place. In front, Sirkia was lapping steadily on his Manx-type Norton, and at the end of the 10 laps he had a minute lead over Schmidt, who was, in turn, over a minute ahead of Larsson. Out of the field of 22, nine men completed the full distance and six of the finishers were on British machines. In the 350cc race British machines had things all their own way. NV Jensen (Velocette), the well-known Danish rider, took the lead on the first lap and was never

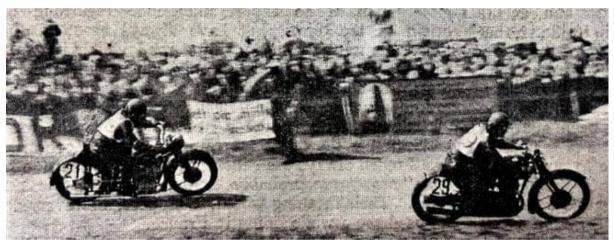
challenged. His nearest rival was E Mansson (Velocette), Sweden, while in the early stages S Somerkorpi (Norton), Finland, held third place. But after six laps Somerkorpi came into the pits and retired with an unstated trouble, and for a few laps EM Olsen (Sarolea) brought Norway into the picture by taking third place. Later he also retired, and L Rasmussen (AJS), who had cured a bad misfire which had slowed him in the early stages, moved up. Retirements in this class were numerous, and on the fourth lap four riders were involved in a nasty melee on a bend shortly after the start. When



"Tre, Två, Ett...Gå—and the 500cc class of the Inter-Scandinavian race pushes off. No 18, P Sirkia (Norton), was the winner."

Jensen received the chequered flag only three other riders were sufficiently in the picture to complete the 10 laps. After a short interval the riders in the International classes took their places on the grid. In front were the 500s and they were to be followed at minute intervals by the 350 and 250cc classes. All the Grand Prix champions of the year were present, including the little contingent that is flying the British flag in these races this year. 'Ginger' Wood was a non-starter as the supercharged FN had not shown its paces at Liege as the designers wished, and apparently Mr Moore was not satisfied with the NSU, for 'Crasher' White had also not arrived. Mellors (Velocette) held the honour of the fastest practice lap in the 350cc class, but Meier (BMW) and Serafini (Gilera) had been lapping at about the same speed as each other in the big class. The course was particularly suited to the Italian Gilera, and to those watching, the tension between these 500cc aces seemed greater than at any other race this year. For once Serafini made an instant start when the flag fell, and Meier's machine was unusually slow off the mark. At the end of the lap Serafini was in front—but only just—for Meier was snarling at his heels. Already the rest of the field was some way behind these two, with Kraus on the second BMW third, and Vailati, the Gilera second string, fourth. But Meier was not out to ride second to anyone, and from round the course came reports that he was riding like a man possessed. Observation on the tricky 'S' bend at the junction of the two legs of the course at Saxtorp made it plain that he had nothing in

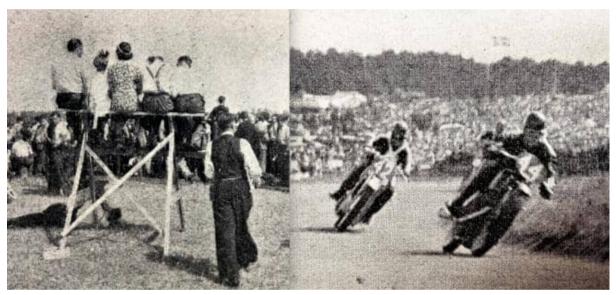
hand, for he only just managed to avoid taking to the grass when coming out of the second bend. But he was in the lead at the end the second lap. Serafini was only a little way behind and his team-mate was now third, for Kraus had run off the course. Meier's lead, however, was not enough to enable him to ease off at all, and he covered the fourth lap in 5min 22ec, making a new lap record at 100.87mph. Serafini was still only a few seconds slower, and on the sixth lap Meier, in an endeavour to get a few more yards in hand over his rival, overdid at a corner. In a flash he was off the course and into a field. He was back on the road within half a minute, but in that time Serafini had gone by, and when they came round to start the seventh lap the Italian was some 50 yards ahead of the German. Round they went, these two, still lapping at nearly 100mph. Serafini seemed to be right on top of his form, for he never let Meier hustle him, and Meier, try as he would, could not reduce the lead of the red and black machine. The pace of the leaders was so hot that the rest of the field was left well behind. FJ Binder, on a Junior Velocette, had to give up after five laps, for his ribs, which were cracked in Belgium, had begun to give him trouble. At the end of the tenth lap Meier came in to fill, and it was seen that his windscreen and various parts of the machine had suffered from the fall. As he filled up he conversed



"A study in concentration in the Inter-Scandinavian races. A Jarvelainen (Rudge) leads C Hansen (BMW) round one of the bends."

rapidly with his racing manager, and pointed vigorously to the transmission. He left the pit after a stop of 20 seconds, but he was not to be in the race for long. On the 12th lap, again while urging the last ounce from his machine, he misjudged a corner, and this time crashed heavily, damaging his back. Later it was known that be would not race again this year. With Meier out, the race lost much of its character, for Serafini could win as he liked. Kraus, on the second BMW, was too far, behind to make any challenge; indeed, towards the end of the race it looked as though Fergus Anderson, who was riding a new Manx Norton extremely well, would catch the supercharged twin. Anderson could not manage it, however, and, had to be content with fourth place. Serafini finished comfortably at a speed which makes the Swedish the fastest international road race.

What the 500cc race lacked in thrills towards the end was amply made up for by the 350s, and the race provided a finish that has not been surpassed for many years in Grand Prix racing. The battle was between Mellors on his Velocette and Fleischmann and Wünsche on DKWs, with ER Thomas on another Velocette never very far away. As usual, the DKWs made a flashing start, and for two laps Wünsche was in the lead, with Mellors 'second and Fleischmann third. Then Mellors overtook the German and began steadily to draw away. He was riding superbly, and his cornering on the twisty sections thrilled and delighted the vast crowd. But he was unable to shake off the two DKW men. Behind these three ER Thomas was riding his best race of the year, and he proceeded to leave the other Britishers, Whitworth and Little, well behind. Little, only just out of hospital after his crash at Spa, was not out for fireworks, and Whitworth, who was riding this course for the first time, kept lapping steadily well inside replica time. At half-distance the order among the leaders was: Mellors (Velocette), Wünsche (DKW), Fleischmann (DKW), Thomas (Velocette), G



"They brought their own grand-stand! This family party were determined to see the race in comfort and away from the vast throng by the rails." (Right) "The great duel in the 350cc race in progress. EA Mellors (Velocette) leads H Fleischmann (DKW) through the twisty section at Saxtorp."

Lonfors (DKW) and Whitworth (Velocette). Sweden's, great hope in this race, R Sunnqvist (NSU), had covered only three laps before he had to retire. Among the first three men the half-way mark seemed to be a signal to increase speed, for the lap times of all three were gradually decreased. The DKW riders slowly began to reduce the Englishman's lead, and Mellors, in spite of laps at 85-86mph, could not hold them off. At the beginning of the last lap they were right on his tail, and as the three figures disappeared up the long straight past the start Fleischmann drew level with Mellors. The Britisher had difficulty in retaining his line on the bends with the two men on his heels, and at one corner had to brake heavily owing to- other riders and so let Fleischmann

through. At another bend Wünsche was in trouble when Anderson (Senior Norton) and Mellors both wanted the same piece of road as he did—Wünsche had to take to a field for several yards. But that one corner gave Fleischmann the race, for Mellors could only catch him on the way back to the start, and it was impossible to overtake through the twisty stretch which leads to the finish. As the two riders came out of the last curve Mellors' front wheel was almost touching the tail of the DKW But the DKW man had the advantage and flashed over the line only a fraction of a second ahead. Wünsche finished third and Thomas fourth. Whitworth and Little both finished comfortably in replica time. In the 250cc race the DKWs had a walk-over, for Dickwell on the Benelli retired after only four laps, and Jorgensen, on an Excelsior, put in 10 laps before he also disappeared. For the whole of the race Kluge sat on the tail of Petruschke (DKW), and on the last lap he passed his team-mate to make the fastest 250cc lap. To round off the day, the winners were presented to the Royalty, and then Carraciola, the German crack car driver, and Kluge gave demonstration runs in the Mercedes and Auto-Union Grand Prix cars. When the vast throng of people began the slow trek home storm-clouds blew up on the horizon. Later the storm came, but too late to spoil a perfect day's racing."



"The kiddies' hour. Our artist finds inspiration at Angmering on the Sussex coast, where the driver is no doubt appreciating, his 'after picnic' cigarette as much as the youngster is the sand."

"ALTHOUGH THE WELSH OPEN Championships held annually at Pendine on August Bank Holiday Monday are no longer supported by manufacturers, the events remain exceedingly popular both with riders and the general public. Last Monday's meeting was favoured with perfect summer weather, and a huge and enthusiastic crowd. Entries were received from as far afield as Manchester, Stockport, London, Cheltenham and

Birmingham, while the local riders were in full force, particularly in the closed events which are run for standard machines only. Standard-machine classes, for which machines had to he fitted with silencers, etc, consisted of mile sprints for 250, 350 and 600cc machines, a six-mile 250cc race, and ten-mile races for 350 and 600cc models. L Harris did well to win both 250cc races on a Manxman Excelsior, and TR Rees gave a good performance on a very standard Red Hunter Ariel, winning the 600cc ten-mile race, and gaining second in the sprint event."

"THERE WILL BE no Brussels Show this year. The Milan Show is fixed for from October 28th to November 15th."

"SWEDEN IS TO change to the 'keep to the right' rule of the road."

"SALFORD POLICE recently tested motorists' brakes and steering free of charge."



"Jolly line-up: A happy picture of the Streatham Club, one of the oldest of the Southern clubs, at their recent Knatts Valley hill-climb."

"A LARGE CROWD of spectators attended the road races held last Monday in Central Park, Plymouth, and with reasonably good weather and an entry of 44 riders the meeting proved a great success. This is the second year these races have been staged, but last year's event had to be abandoned shortly after it had started, owing to a cloud-burst, so the organisers (the Plymouth Motor Club) were still somewhat uncertain whether or not their venture would be a success. The course used is roughly triangular in shape, being just short of a mile, and surfaced with rather loose granite chippings on tarmac. The start and finish is approximately half-way up one of the straights (on a slight uphill gradient), and with many vantage points and exceptionally efficient loud-speaker equipment the course appeared to be very popular with spectators. From the riders' point of view it was also excellent, save, perhaps, that the loose chippings tended to make the corners treacherous, but there were very few spills during the afternoon."



"The massed parade of riders at the start of the races."

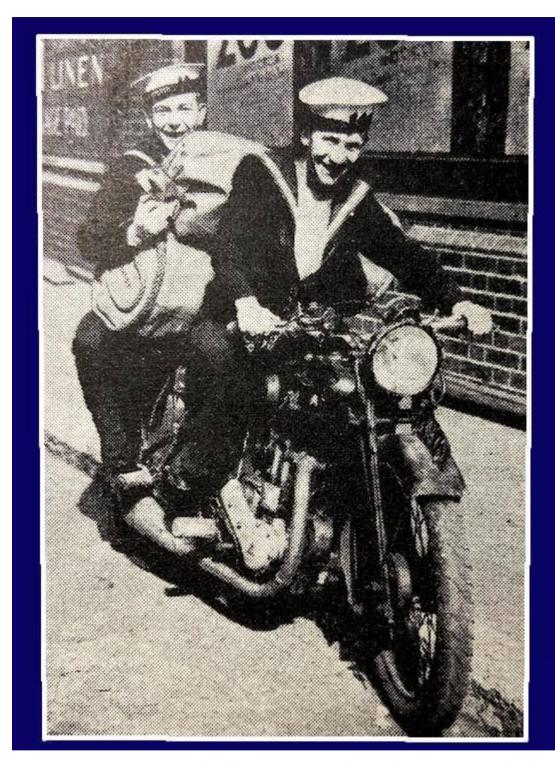
"SALZBURG NEXT WEEK is the centre of the biggest International Six Days Trial yet held. No fewer than 278 competitors have entered. This exceeds the record entry of three years ago by 22. Germany, who is acting. as host, has, of course, the largest entry of the seven nations represented. The actual figures are: Germany, 163; Great Britain, 61; Italy, 30; Holland, 13; Sweden, 6; Hungary, 4; Belgium, 1. The chief interest lies in the contest for the International Trophy, which is for teams of nationals riding machines made in their home country. Italy returns after an absence of two years and will compete against British and German teams. An innovation this year is that the teams consist of three solo motor cycles and one passenger machine. In the past there have been only three men per team, with two riding solo. The alteration has been made in order that there may be less likelihood of a tie. Another interesting feature of this year's trial is that the War Office has sent three teams to Germany to compete for the Hühnlein Trophy, a competition open to teams representing any recognised organisation. In these days the War Office, as is well known, looks upon trials as an ideal form of training for Army motor cyclists."

"THE ARMY CONTINGENT has set forth for the International Six Days Trial which is to start next Monday August 21st, at Salzburg, to the south-east of Munich. The convoy left Aldershot last Sunday, spent the night at Southampton and the following morning went aboard the Europa bound for Bremen, where they were to be met by members of the German Army and escorted through Germany to Salzburg. There are three teams of three and a reserve for each team. The twelve riders are travelling through Germany on their practice machines with a view to becoming accustomed to Continental road conditions...The following week will be spent practising on the course. After the trial the contingent is to go to Belgium for the International Military Trial, which is to be held near Spa. The same machines will be used. In charge of the party, which is 22 strong, is Lieut-

Colonel CV Bennett OBE, a very keen motor cyclist who has competed in numerous trials. The machines to be used are BSAs, Matchlesses and Nortons. In all the party will be away some six weeks."



"The army riders for the International Six Days Trial lined up at Southampton before embarking in the Europa for Germany. On the extreme right is Lt-Col Bennett, who is in charge. The contingent consists of three teams of three who will ride BSA, Matchless and Norton machines, a reserve for each team and various helpers."



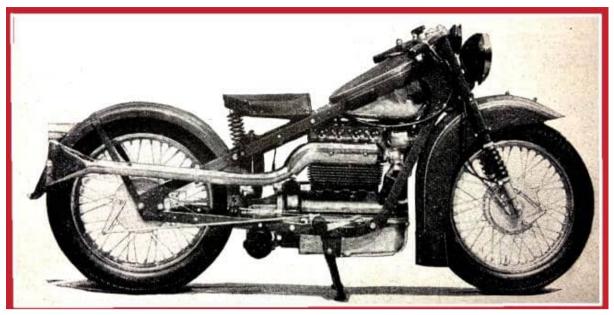
"Back

to the ocean wave: two of Britain's 12,000 reservists arrived at Waterloo Station, London, to entrain to Portsmouth and so man the Reserve Fleet."

"Paton" Visits Copenhagen The 750 c.c. Four-cylinder Nimbus

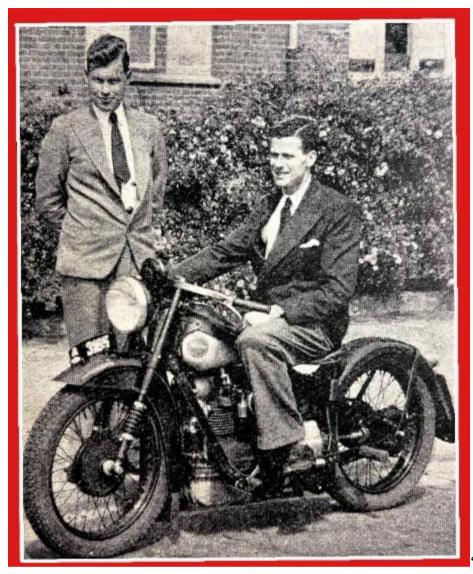
"ALTHOUGH MOTOR CYCLING is very popular in Denmark, about 50% of the machines used are imported, the majority of them from Britain. Those not imported are made in

one factory in Copenhagen. The reason for the popularity of the one Danish make is not difficult to understand because of its extremely practical design. The machine concerned is the Nimbus and the factory first produced motor cycles shortly after the war. Production was dropped some years later and was only begun again about five or six years ago when the present type was introduced. The makers decided to produce a machine that would give long service and require a minimum of attention. After a great deal of thought it was agreed that an engine based on American car-engine design would be the most suitable for this purpose. As a result, the modem Nimbus unit reflects American design in many respects. The engine has four cylinders in line and the cylinder block is cast in one unit with the top half of the crank case. The bottom half of the case consists of an aluminium oil sump. A solid crankshaft is carried on two large ball bearings, one at the front and one at the rear, and the big-end bearings are of white metal run directly into the connecting rods. Normal-type pistons with solid skirts are used but an unusual feature is a scraper ring in the base of the skirt in addition to the normal scraper and two compression rings. In common with American practice the compression ratio is low, 5 to 1 in the standard engine and 5.7 to 1 in the sports model. In these respects the engine is perfectly straightforward, but in the valve gear arrangement the designers have shown great ingenuity. Overhead valves are employed and are operated from a single overhead camshaft running in bronze bearings in a neat aluminium housing. A vertical shaft drives the camshaft through bevel gears, and this shaft is also the dynamo armature shaft. A key at the bottom of the shaft drives the gear oil-pump, while the combined oil and distributor unit is driven from the front end of the camshaft. Incidentally, both the dynamo and the distributor are made in the Nimbus factory. All bearings are pressure lubricated. To help to obviate any oil leakage a vacuum is created in the sump by means of a pipe between the sump and the carburettor intake. A normal three-speed gear box is driven at engine speed through a single-plate clutch of car type. The lining is pressed into holes in the friction plate and no rivets are used. Final drive is by a short shaft with rubber couplings to robust crown and bevel wheels, which are carried in an aluminium housing. The whole unit is mounted in a pressed-steel frame with telescopic front forks. These forks are spring operated, but have oil dampers at the bottom end of the fork tubes. In place of the normal handlebar there is a pressing which also forms an instrument panel.



"In this view of the Nimbus the general layout of the four-cylinder unit can be seen. The vertical dynamo mounting is one of the many unusual features of the engine, and the telescopic forks and unique tank mounting are a complete breakaway from accepted British practice."

Twist-grips are fitted at each end of the pressing, the right one operating the throttle and the left one the dip-switch. The saddle is 'home-made'. Having seen how this interesting machine is made in the up-to-date factory in Copenhagen, I was naturally keen to get astride one of the models. A Sport model was wheeled out, and in company with the two young manufacturers of the Nimbus (also on machines) I set off for the outskirts of the city. For this part of the trip I sat on the pillion behind one of the works riders. Incidentally, that pillion seat was the most comfortable I have ever been on. It was the popular Continental type, rather high, but it was very well sprung and smoothed out all the bumps in a delightful manner. When I took over the Nimbus the engine was naturally warm, but even so I hardly expected the effortless start which I obtained. The kickstarter is of the transverse type on the near side, but a full kick can be administered because the frame does not restrict the starter movement. Slow running was like that of a car engine and I did not have to blip the throttle to keep the engine running. There was some mechanical noise, but I soon found that this was not noticeable when the machine was on the move. The clutch was of that pleasant, unobtrusive type. I merely engaged bottom gear, let in the clutch and the machine moved off slowly and smoothly on a light throttle opening. Once on the move the weight of the machine was not noticed—fully equipped it weighs 375lb—and I was soon zooming along, revelling in the smoothness of the four-cylinder unit. Gear changing required care; as with nearly all gear boxes which run at engine speed, the best results were obtained by doubledeclutching. It was not that there was any difficulty in engaging



"Mr. Fisker, co-

manufacturer of the Nimbus, snapped with 'Paton' (on the model) at the conclusion of the run."

the gears, because the positive-stop foot-change was efficient enough; it was simply that to get that 'smooth as butter' feeling double-declutching was necessary. But a lot of gear changing is quite unnecessary with the the Nimbus, for the flexibility of the unit is surprising. I could throttle down to 10mph in top gear with ease and then open the throttle quite rapidly without the transmission or the engine protesting; only when the speed dropped as low as about 6mph did any snatch-ing occur. Thus, for normal use, the Nimbus can be treated as a top-gear mount. I did not take any acceleration figures, but the acceleration was definitely good, particularly in top. The smooth flow of power was really delightful, and the engine seemed to work happily as it zoomed into its stride. No extravagant claims are made by the makers as regards speed, and I did not try the machine for maximum, but at speeds up to 50mph—there is a speed limit on the open road in Denmark—there was plenty of power in hand, and the machine would accelerate quickly up to 60mph in top. The steering and general handling seemed to be

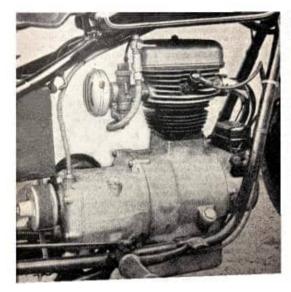
on a par with a good 500, and I swung the model round fast bends without any undue effort. At low speeds I could turn round in a normal road feet-up quite easily. The Nimbus is not fitted with a.spring frame, but the soft saddle and 3.5in section rear tyre gave a great deal of comfort. Part of this was probably due to the front forks, which are softly sprung; they ironed out bumps and potholes and yet did not bottom at highish speeds. Both brakes were well up to their job, and the front one had sufficient power to make the tyre scream on a dry road when I put it on really hard. With its British-type riding position, the Nimbus did not feel at all strange to handle, and I was quite at home on the machine in the first few yards. My outstanding impression was the smoothness of the unit and the general car-type flexibility and silence. No mechanical noise was noticeable when riding the machine, and the exhaust note was almost inaudible at low speeds and very subdued throughout the engine's range. At the end of my ride the engine had not become at all hot, and the makers' assured me that they do not get any overheating troubles. But you should not imagine that they are satisfied with the machine. They are still experimenting, and one of the makers was riding an experimental model in which the whole of the valve gear is totally enclosed. I left the factory feeling that here is an unusual and excellent contribution to multi-cylinder design."—'Paton'.



"The handlebars are particularly clean, and well placed in relation to the saddle."

"MOST MOTOR CYCLISTS in Britain associate the name BMW with high-performance transverse twins, but the famous German factory also produces single-cylinder models. In their latest form these machines incorporate many of the features on which the twins have built up their reputation, and the recently introduced 250cc model has been built more or less regardless of cost. The engine is of the ohv type with the valve gear fully enclosed, and, as with all BMWs, the crankshaft is in line with the frame. A three-speed gear box is built in unit with the engine, and one of the first things that is noticeable in this BMW is the extreme cleanliness of the layout. There is only one external oil pipe, and the flywheel and gear box housings are free from ugly excrescences. Final drive is by shaft, and the only external moving part, other than the wheels, is the shaft itself. The

machine under test had that out-standing feature of all BMWs, a complete freedom from oil leaks, so that the machine was very easy keep clean—a wipe over with a soft cloth was all that was necessary after a long ride—and, more important, the rider could wear clean clothes in the knowledge that they would be free from oil spots at the end of a ride. During the test it was surprising how many people normally disinterested in motor cycling expressed their pleasure at seeing a machine so neat and clean. Another outstanding feature which appeals to the lay public as well as to the rider is the lack of noise, both mechanical and exhaust. It would probably be no exaggeration to say that this BMW is the quietest single-cylinder machine produced to-day. At low speeds the exhaust note was a quiet burble; at wide throttle openings the note could certainly be heard, but it was never unduly noticeable. No mechanical noise could be heard by the rider with the machine on the move, and when the engine was idling there was only a trace of tappet noise. During the test the BMW always started very easily. No air control is fitted, and it was not missed by the rider. When the engine was cold the carburettor had to be flooded, of course, but no special precautions were necessary. The ignition was retarded for starting at all times, and when the engine was warm a first-kick start was almost certain. At no time were more than two or three kicks necessary. Idling was exceptionally good for a 'single'. With the ignition retarded the engine could be throttled down until the firing strokes could almost be counted. In normal use the machine could always be brought to a standstill with the engine ticking over, and the rider had no worry that the engine might stall. This even running at low speeds was reflected in the machine's performance, for the flexibility of the engine proved outstanding for a 250. In top gear the normal minimum speed used was about 15mph. The machine would run perfectly smoothly at this speed, and could then always be accelerated away quite smartly. But if the rider cared to use the ignition lever to the full, lower speeds could be used; on several occasions the machine was actually throttled down to 10mph in top without any transmission snatch occurring. So much for the bogy that shaft drive is not flexible. The foot gear-change, which is on the near side of the machine, required a certain amount of care in use if silent changes were to be made. A stop is provided on the frame to avoid the rider missing second gear—the





"The neat engine-gear unit is free from excresences and the only external moving part, apart from the wheels, is the drive shaft." (Right) "A timing-side view of the machine. Following normal BMW practice, the front forks are of the telescopic type."

change is not of the positive-stop type—but this was rarely used, since by doubledeclutching the gear would always engage in a positive manner. It was found advisable to double-declutch for all changes. The clutch is operated by an inverted lever on the near-side end of the handlebar, and the whole action of the clutch was light and smooth. Footrests and saddle are in good relation to the handlebars, and the machine was comfortable even for a six-foot-tall rider. No rear springing is fitted to this 250, but the soft saddle springs and very long action of the telescopic front forks were found to give a high degree of comfort. Very high praise must be given to the steering and handling of this BMW. It is a machine that, in the first few yards, makes the rider feel really confident. It was ridden in the worst conditions—from the point of view of skidding—in traffic, and yet never once did the machine show any tendency to get out of control. Out of town the BMW showed up well. It could be cruised apparently indefinitely with the speedometer needle showing 50-55mph, and at 40-45mph the engine was obviously only working lightly. Some vibration was noticeable at speeds above 30mph. Acceleration was good, and from a standing start a speed of 54mph. was attained in a quarter of a mile. The best timed speed attained in top gear was slightly over 60mph, but the machine could always be taken up to 58mph with the rider sitting up. At no time during the test could the engine be made to pink, although a No 1 fuel was used. At a steady 40mph petrol was consumed at 80mpg. Both brakes were really powerful and delightfully smooth. The brake pedal is well placed for convenient use. In a crash-stop the BMW was brought to rest from 30mph in 33 feet. Thus this 250cc BMW combines many outstanding features. It is of exceptionally clean design, proved clean to ride, and its flexibility and silence make a big appeal to those desiring quiet, effortless touring. In addition, it is well braked, easy to start and has a very useful all-round performance."

"FOLLOWING THE REDUCTION in the number of types of motor cycle that may be manufactured in the country, the Controller of the German motor industry has issued a further order under which there is to be a considerable reduction in the number of different patterns of motor cycle components and accessories. According to the Kraftfahrzeug, which prints a list of 15 classes of goods affected by the regulation, the number of types of motor cycle front forks is, for example, to be reduced from 25 to 4, road wheels from 200 to 9, driving chains from 30 to 10, saddles from 26 to 3, and footrests from 150 to 9. The purpose of the regulation is stated to be to effect economy and to increase and cheapen production."



"LAST SUNDAY THE FOURTH round of the European Grand Prix contests was fought out in Saxony, in the south-east of Germany. This time Italy took the major share of the honours: Serafini (Gilera) won the 500cc class comfortably, and two Guzzis in the hands of Sandri and Pagani beat Kluge (DKW) in the 250cc event. Great Britain, represented by ER Thomas (Velocette), was second to W Hamelehle (DKW) in the 350cc race, and other Velocette riders finished third, fourth, sixth, seventh, eighth, and tenth. As usual, the race aroused enormous interest in Saxony, and reports of the practising appeared in all the important daily papers throughout Germany. The 250cc supercharged Guzzis again showed themselves to be extremely fast in practice, and their lap times were better than those of the DKW works riders on 350s. The DKW men put in some practice laps on the supercharged models, but once again it was decided not to use them in the actual race. With Meier out of racing for the year, after his crash in Sweden, and Kraus also out with a leg damaged in the Swedish race, the BMW marque suffered agonies in practice. They were trying out three new riders: Mansfeld, back in the saddle after an absence of two years, Ruhrschneck, the NSU jockey, and Lodermeier, a new and young rider. These new men were not really used to these fast supercharged twins. Lodermeier and Ruhrschneck were comparatively slow; Mansfeld was much faster, but he was obviously riding at his limit and twice abandoned the model, causing consider-able damage. When Jock West arrived from London with his wife on holiday and paid a visit

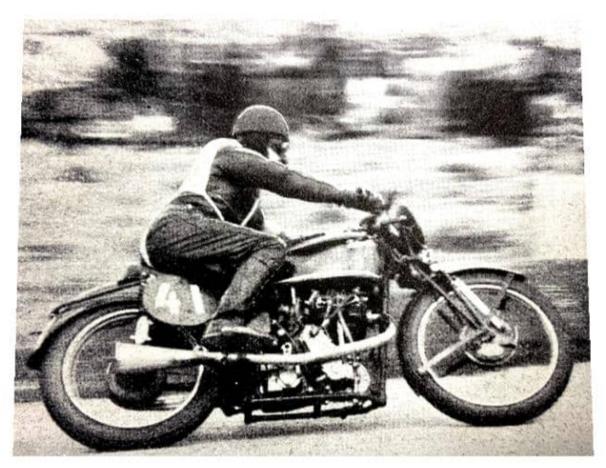
to the BMW works at Munich, they immediately packed him off to the course to practise. His times were good, although his riding was done in the rain; he was immediately entered for the race. The weather during the training period was unsettled, and rainstorms made the ground round the course very muddy; but on the day of the race the sun promised a fine day even as early as seven o'clock. Long before 9am thousands of spectators lined all the vantage points, and the many stands were all packed to capacity.



"Some idea of the huge crowds which attend the German Grand Prix can be obtained from this general view taken from the timing box. Among the many uniforms are those worn by a group of Dresden police standing near the straw bales."

Later in the day it was announced that the crowd numbered about 320,000! Among them were all the important people in the neighbourhood, most of whom were in uniform. Korpsführer Hühnlein took a lively interest in the day's racing, and the Governor of Saxony, with his entourage, sat in the stand throughout the three races. With German punctuality, precisely at 9am the maroon announced the start of the 250cc race. The field consisted mainly of DKWs, but there was one privately owned Benelli and the-two supercharged Guzzis. Tenni (Guzzi) and Winkler (DKW) were important absentees—both had crashed in recent races. Kluge (DKW) was easily the first away, and made the most of his good start on the first lap. When he came in sight at the top of the long straight descent, which can be seen from the start, the leader of the rest of the field could not even be heard, and as he passed the stands he had a lead of nearly 400 yards. Sandri and Pagani, on the Guzzis, were second and third, and were already some way ahead of Petruschke on the second works DKW. The Guzzi men soon proved that Kluge's efforts were in vain. On the second lap they halved his lead, and on the third lap sandwiched him into second place and soon left him behind altogether. Behind these works machines the privately owned DKWs were yowling round, making the most deafening noise. The best of the private owners, Berger, was hotly chased by Gablenz, also on a DKW. After ten laps the order of the leaders was Sandri (Guzzi), Pagani (Guzzi, Kluge (DKW), Petruschke (DKW), and Berger (DKW), but soon afterwards Petruschke stopped to change a plug. He is a small man, and when he came to restart

the road was uphill and he could not get the engine to fire. The Guzzis continued to increase their lead over Kluge. For the first half of the race (17 laps) they gained approximately three seconds per lap; after the pit stops they increased speed, and in scrapping with one



"Rhythmic grace is revealed in this shot of ER Thomas heeling his Velocette over on one of the fast bends on the German course. Thomas was second in his race."

another their gain went up to seven seconds per lap. The speed of the Guzzis was so high that with the exception of Kluge they lapped the field three times! Pagani, who had ridden behind Sandri nearly all the way, slipped by on the last lap and crossed the line a few yards ahead of his team mate. While the winner of the 250cc race lapped the circuit with the wreath of victory on his shoulders, competitors in the 350 event warmed up their machines and changed from soft to hot plugs. Out of the 40 entries, none of the official NSU machines was present, and the chief interest lay in the competition between the British contingent on KTT Velocettes and the three works DKWs. Fleischman, the first-string DKW rider, was keen to do well because before the race he was tying with Mellors on points for the lead of the European racing championship (Mellors was not competing —he had returned to England from Sweden to prepare for the Ulster GP). Once again the DKWs were first away—these racing two-strokes seem to start and get into their stride immediately. At the end of the first lap the three German

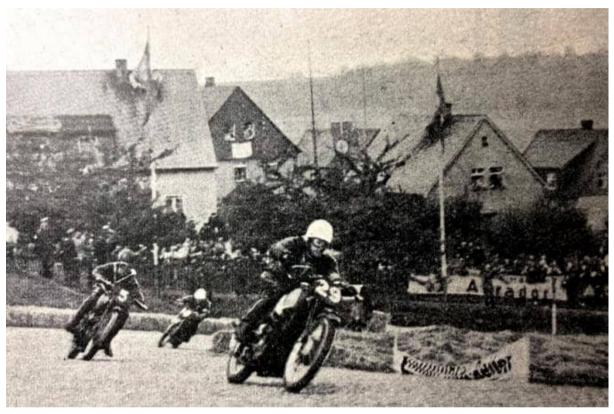
works riders, Wünsche, Hamelehle and Fleischmann, had a good lead over the first Britisher — Thomas (Velocette). Binder (Velocette) was third, and behind were Richnow (Brumm-Rudge), Knees (DKW) and Whitworth (Velocette). The works DKW men showed poor team management, for they began a terrific scrap among themselves for the lead. First Hamelehle would be in front, then Wünsche, and on the next lap Fleischmann. This went on for several laps, to the huge delight of the crowd, for the three crouching figures made an exciting spectacle as they manoeuvred for the lead. But the pace began to tell on the DKW engines. On the 16th lap



"A magnificent action picture of the scrap which caused two out of the three works DKWs in the 350cc race to retire. S Wünsche is in full cry after W Hamelehle, who was the ultimate winner of the race."

Fleischmann's engine went sick with the strain and he failed to come round with his team-mates. Four laps later Hamelehle came round and drew in to the pit to fill up alone. Poor Wünsche toured in a few seconds later and retired at the pits with an engine which had also suffered from the strain. Meanwhile, the Velocettes were showing their usual superb reliability, and each of the Britishers lapped with clock-like regularity. With Wünsche and Fleischmann out, Thomas moved up into second place. He continued to ride a beautiful race, cornering as neatly and confidently as if he had nothing to lose, and yet taking each corner as fast as was possible in safety. Behind him, Binder showed better form than in any race since the Dutch TT. In spite of a punctured air cushion, which was giving his weak ribs a good hammering, he continued to lap at nearly 80mph. After everyone had made their pit-stops the race settled down again, with Hamelehle in the lead, Thomas second, Binder third, and Whitworth (Velocette) fourth. Whitworth was having a hard tussle to stave off Knees (DKW), who, as the leader of the German private owners, was riding an extremely good race. For many laps these two passed and re-passed one another, and it was not until towards the end that Whitworth established his superiority. Little, the other British Velocette man, had been content to lie farther back, but in the closing stages he increased speed and overtook Cora (Velocette) for sixth place. After 40 laps Hamelehle got the chequered flag, to the great delight of the German crowd. Thomas got almost as big a cheer from these sportsmen when he came home second, however; and Binder's third place was equally popular, for he is Austrian by birth. Before the last race there were several diversions. First, Hassé drove round the

course in one of the Auto-Union Grand Prix racing cars. He was followed by Korpsführer Hühnlein, in a supercharged Mercedes. Then, as the 500cc class was lining up, all eyes were turned skywards to gaze at the new Graf Zeppelin, which floated lazily and noiselessly overhead, paying a courtesy visit to the meeting. The huge ship flew low over the circuit. several times so that everyone could admire her size and shape. Thoughts were soon focused once more on the race. Four official BMWs lined up to do battle with the two supercharged Italian Gileras. Riding the German machines were Jock West, Mansfeld, Ruhrschneck and Lodermeier, while on the Gileras were

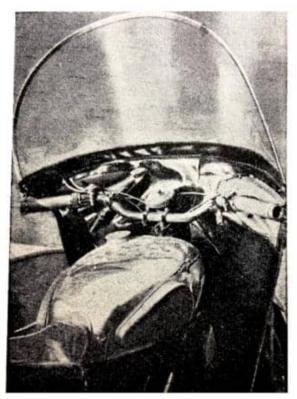


"Pavé forms the surface of a tricky artificial bend which leads the course back to the starting straight. Here Sandri (Guzzi), No 5, second man home in the 250cc race, is overtaking W Burg (DKW) on the apex of the turn."

Serafini and Vailati. Serafini was, in fact, the sole real challenge to German hopes for Vailati had damaged his leg in a multiple crash in practice and was far from fit. The rest of the field were privately owned Nortons, BMWs and NSUs. Serafini was to prove more than a menace. From the start he leaped into the lead, and was never seriously challenged. In the early stages Mansfeld made heroic attempts to catch the Italian, and the German was cheered frantically at one time when he reduced the Italian's lead to 15 seconds. But Mansfeld's riding was too hectic, and on Lap 32 on one of the bends near the start the BMW took charge. In the crash Mansfeld damaged his leg. Retirements in the race were numerous. In the early stages Lampinen (Norton), Nowotny (DKW), and Vaasen (Norton) were all in at the pits in trouble. Six retirements were announced in the first 15 laps, and after the pit stops the field thinned out even more. Poor Jock West's

luck was right out, for he walked in just before half-distance. It was reported that the engine had given trouble, although Jock was seen to make snaking signs with his hand when re-porting to his pit. With West and Mansfeld out, the race lost most of its character. Serafini was a minute ahead of Ruhrschneck, on the first BMW, and the remainder of the field were straggled out behind. Even Vailati, on the second Gilera, gave up. At the end of the 40th lap Serafini was flagged, to make the second Italian win of the day. Of the rest of the field, only Ruhrschneck and Lodermeier completed the full distance. Afterwards, with much ceremony, Korpsführer Hühnlein addressed all the riders and a huge multitude of spectators. His own and other special prizes were presented, the troops marched briskly away. the people strolled off, and another German Grand Prix was over."

"A MOTOR CYCLE WINDSCREEN designed to give maximum protection has just been marketed by Edward Bowser, 88, Kirkstall Road, Leeds, 3. As the photographs show, it curves round to handlebar width, and below there is ample shielding for the legs. The hands are also protected. The screen can be raised or lowered, or tilted, to the rider's requirements. A windscreen wiper is also fitted. The price of the Bowser screen is 35s."





"A rear view of the Bowser screen which shows the excellent protection given to the body and hands of the rider." (Right) "This head-on picture gives an idea of the very good overall protection, from the rider's head to feet. Note the windscreen wiper."

"ONCE AGAIN THE HARTLEPOOLS &DMC are to be congratulated on putting up a very fine show in aid of the Hartlepool Hospital. Carnival Day, sunshine, and such well-known riders as Maurice Cann, with his twin Guzzi and a Norton, and Dennis Parkinson,

gave the large crowd a very enjoyable afternoon. There were 27 entries, including several stripped machines which had appeared in the Island, and some excellent times were recorded. B Berry, with his SS100 Brough Superior, and D Parkinson (490cc Norton) tied for the beat time of the day...The first event was a handicap for the Cameron Cup, and it provided an easy victory for AW Zealand (Triumph). The Cunningham Cup event for 350cc machines resulted in a struggle between M Cann (Norton), J Brett (Velocette) and FRH Elliott (Norton). Elliott, who tucked his large bulk into a surprisingly small space, was a popular winner. The unlimited cc event for the Elliott Cup was undoubtedly the race of the day. Excitement was intense as M Cann (Guzzi) and B Berry (Brough Superior) came to the line. Down went the flag, and two front wheels pawed the air. Two black streaks were left on the tarmac, and before the crowd could recover, word came through that Berry had secured best time of the day, beating Cann by a few yards."

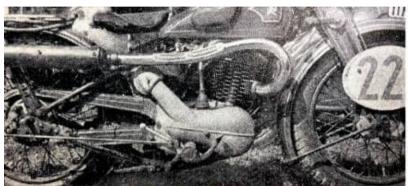




"The International Trophy."

"THE GREATEST OF ALL International Six Days Trials, that held in Germany last week, was virtually brought to an end last Friday. The cause, needless to state, was the European situation. In Salzburg information as to what was really happening was scrappy in the extreme. The German papers revealed little: those British papers available were two days old; wireless reception of the English news bulletins was next to hopeless. Scraps of information, garnered in this direction and that. made it obvious on Wednesday, the third day, that there was growing tension between the nations. Was it wise for the British and other contingents to stay? None knew. Maps were examined to determine the quickest way to the frontier. Telephone calls were put through to the

Consulates. It was learned that the situation was grave: that French nationals had been warned to leave Germany: that as yet there was no similar advice to British subjects. The decision was that the British contingent should carry on with the trial. Both the British Trophy team and the 'B' Vase team had clean sheets. All would start, and if the news the following morning was such that it was imperative to leave Germany, an endeavour would be made to get the information through to the lunch stop, which was nearly half way to the Swiss frontier. All Thursday there was a search for news. A little before midnight a decision was reached: the British riders would leave for Switzerland early the following morning. Lt-Col Bennett, in charge of the three British Army teams, having





"An air-cleaner which is combined with the saddle-tube oil tank is fitted to the new two-stroke TWN. The extension of the engine-gear unit cover is the air intake duct, which leads to the carburettor mounted low down behind the engine." (Right) "After his success in the Scottish Six Days Trial, FH Whittle was chosen as the sidecar reserve driver for the British teams. Whittle and his passenger were snapped while putting final touches to the Panther outfit at Salzburg."

no instructions from the War Office, decided that his men should carry on. Later they too left for the Swiss frontier. The trial, which promised to be the most strenuous ever held, was virtually at an end. **MONDAY** 

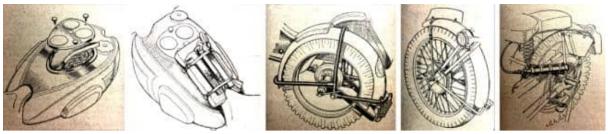
The first day's route may have been hors d'oeuvres, but it was just about 295 miles in length—475 kilometres, according to the route-card. And at least two-thirds of the course lay over narrow, loose and vilely dusty roads. This, the *Sudetenland-strecke*, to quote the programme, was mileage, but extremely gruelling. Twelve of the 266 starters retired, and a further 13 lost marks, and thus were no longer in the running for premier awards, the FICM gold medals. No stretches of the route were outstandingly difficult—it was just the modern International Six Days' with its big mileages over country roads and its high average speeds. Twelve time-checks were included, and, as is the rule with the International, oil competitors had to pass through each within three minutes of their schedule time or lose marks. None of the three teams—German, British and Italian—that were competing for *the* award, the International Trophy, lost a mark. In the





"Last-minute adjustments outside the Shell depot. The man in the foreground is seeing whether his belt fits him, while HN Toomey (Panther) gives a final look over his controls." (Right) "These men are hoping that nothing has been overlooked as they wheel their machines into the official shed at the weighing-out. Both solo and sidecar have high-level exhaust systems."

competition for the International Silver Vase, which is open to teams from all countries—teams of three riding machines made in any country as opposed to teams of four and motor cycles made 'at home'—all were level except the Italian 'B' team, which had lost 14 marks owing to M Ventura (500cc Mas) having trouble and being late. Thus the scrap between the three national teams, those of Germany, Italy and Great Britain, continued unchanged. It was only in the secondary competition, for the International Silver Vase, that there had been any weeding out. Eight teams were still level, each with no marks lost, Great Britain 'A' and B', Germany 'A' and 'B', Holland 'A' and 'B', Sweden and Italy 'A'. The question was: 'What will happen on the morrow?' This, in the opinion of many, was likely to prove the most difficult route of all. However, the first day had already accounted for A Jacobi (494cc BMW), A Zimmermann (496cc Zündapp), HM Toomey (498cc Panther), WHJ Peacock (997cc Ariel sc), Graham Oates (997cc Ariel sc), K Döbereiner (750cc BMW sc), S Hoffmann (494cc BMW), H Klett (600cc BMW cc.), A v Döry (346cc NSU), F Lukavecz (346cc NSU); DA Gulliford (347cc Matchless) and H Hermann (123cc DKW). In the Hühnlein Trophy competition 12 of the 41 teams that started lost marks and therefore could be assumed to be out of the running. The British teams that were still all right were. the CSMA, Sunbeam MCC, South-Eastern Centre 'A' and the War Office 'A' and 'B'. Both the South-Eastern Centre 'B' and the War Office 'C' teams lost marks. Nine British teams retained their clean sheets in the inter-club competition: Sunbac, CSMA, Coventry and Warwickshire, Birmingham, West of England, Bradford, Sunbeam 'A' and 'B', and Carshalton. TUESDAY Tuesday's run was expected to be the most difficult of the week. It was extremely difficult, but only because of one section, 23 miles long. The rest of the course could be termed fairly easy. Like Monday, there was mile after mile of loose-surfaced country road, but for the most part the going was rather easier—either that or competitors were becoming more accustomed to the conditions.



L-R: "Out of the way but handy if required—the ingenious cache for spare chains under the dummy instrument panel on G Eighteen's Matchless." "A tank-top pad holds essential tools on the Army AJS machine and the sorbo and rubber straps make them secure." "Neat sidecar-wheel suspension on HR Taylor's Ariel outfit. The wheel is attached to the 'U'-shaped member which pivots on the main outrigger. The spring is of course in tension." "Only one security bolt is used in the front wheel of the AJS machines, and as these are fitted in the correct position near the valve the wheels have been balanced. The nail-catcher and method of wheel removal will be noticed." "Equipment to combat the puncture bogy as lilted to George Rowley's AJS. The special spanners ensure rapid wheel removal, while the long connection from the air bottle is handy if the rear tyre has to be inflated away from the machine: it is also long enough to reach the front wheel."

The day's mileage was short for an International—only about 230. At 5am, the starting time, there was again promise of a fine day. The locals, however, were not too confident; they seldom are in this mountainous area, for storms sweep across the peaks although little more than minutes previously the sun was blazing down out of what appeared a perfect sky. This time the route lay to the east of Salzburg—the Salzkammergut course, it was called. As usual, it was cold at first, with the dew-laden air marvellously invigorating. It was good to be up and about, for besides the air with its sweet smell of grass that had been mown for hay, the rising sun gradually lit up the mountain peaks with a soft pink. Here and there, adding to the picture, a peak was wreathed in cloud. The country through which the course eased passed consisted of mountains and lake. Competitors, however, had little time to look around them, except when waiting at the time checks. Over the first section to Mondsee the solos of 350cc and over had to average approximately 28mph. To the next check, at Schorfling, their speed was 33mph. Neither of these speeds may seem high, but as competitors must make up a certain amount of time in case of, say, a puncture, the average speeds are necessarily much higher than they appear on the route-card. For instance, the distance from Mondsee to Schorfling is about 22 miles and the time allowed 40 minutes. If a competitor made up the amount of time required to fit a new inner tube in comfort, say, ten minutes, at the end of the section he would have covered 22 miles in 30 minutes, an average of 44mph, which is very different from 33mph. In this lies the main difficulty of the International; high speeds over poor surfaces—in other words an Alpine Grand Prix. One man did have tyre trouble, though not until after the lunch stop (for the first pair of riders 9.21am!). Allan Jefferies, of the British Trophy team, had a puncture, 'pumped up' twice with his air bottle (a cylinder of CO<sub>2</sub>), changed his tube in the time he had in hand at the check, and fitted a new tyre at the finish. There was quite a lot of fun and games en route. Dr Galloway (499cc Rudge sc) had to keep stopping to tie on his sidecar body with copper wire. Len Heath (Ariel), of the British 'A' Vase team, met a car, the driver of which kindly got out of the way by steering on to the roadside. Unfortunately the said driver got more or less out of control, and Heath dived into the trees as being the safest plan. Lieut Riley (Norton) ran out of fuel owing to his tank leaking, and had to retire. While Harold Taylor (997cc Ariel sc) met a car on a right-hand bend, and to avoid his sidecar and passenger being wiped out had to take to the ditch. No one was hurt, but the forks were badly bent, and Taylor completed the day's run with his passenger helping to steer by means of a screwdriver driven into the end of the near-side handlebar. The really difficult section came near the end of the run. First there was the Pass Gschütt, which is a twisty 1 in 4and-a-bit climb with a surface rather better than that of Porlock Hill before it was tarred. Now came the part on which a German, when practising, fell over a precipice, and where George Rowley, out with the rest of the British Trophy team for the same reason, went one way and his machine the other—the latter over the edge. According to the route-card the distance from check to check was 23 miles, which had to be covered at a 22mph average by solos of 350cc and over, 20 by the sidecar outfits and 250cc solos, and 19 by the 125cc machines. The first few miles consisted of narrow, dusty road through woods; a twisty



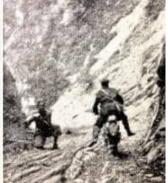
"Fuscher Törl, a check amid the summer snows high up the Gross-glockner Pass." (Right) "A group of British competitors pose for the camera amid the grandeur of the Grossglockner scenery. No 163 is JJ Booker (Royal Enfield), and No 166 Colin Edge (347cc Matchless). Behind the latter rider is AB Bourne, the Editor of *The Motor Cycle*."

sort of road that was thoroughly dangerous if, as happened when the *MC* man rode along it, there were lorries coming from the opposite direction. Nevertheless, many of the larger solos averaged well over 30mph on these few miles. Next there were a few miles of bare cart-width track, which twisted and turned and was, therefore, slow going but had a good surface. One stony up-grade required slight care. Then came a really frightening part: a narrow track with a surface of loose stone and, on the left, an almost

sheer drop of anything up to 300 feet. Here it was a question of eyes on the road, keep to the right-hand side and try to forget what might happen if you skidded. In its dangerous nature the road was probably second only to one of the military roads in the Dolomites that the' Italians included in the, first true 'Alpine Grand Prix' type of International seven years ago. Then followed a short stretch of comparatively easy going. The track twisted and the speed at corners had to be reduced to 10mph, but there was nothing more difficult than the negotiation of loose stone. The scenery was magnificent, for the route lay completely in the wilds—well- up in the mountains. As the first taste of rough-stuff there was a slightly muddy 1 in 6 descent with lengths of larch tree laid across the track to prevent it being washed entirely away. In addition, there were big stones and at each tree trunk a drop of anything up to 10in depending upon the course chosen. Len Heath (Ariel) and Vic Brittain (Norton) were seen on the early part. Both were travelling with a steadiness and neatness that were in extraordinary contrast with the machine-thrashing methods of perhaps 50% of the others in the trial. Allan Jefferies (Triumph 'Twin') was watched at a tree stump section, where he was carefully taking each log at the point where the drop was lowest. A little over three miles from the end of the section the track dropped steeply downwards through a mighty rock gorge. Around a right-hand 1 in 5 corner, out of sight of the approaching competitors, were huge gnarled rock out-crops, some of them 9 or 10in, high, and on the left to make the track up to the width of a farm cart were tree trunks laid crudely on other tree trunks. This 'bridge' rested on a narrow rock plateau on the right, and on the far side of a stream on the left. Daylight showed through these tree trunks—in one place square feet of it—while to the left of them was an unguarded 8-12ft drop into the bed of the stream, which was dotted with. rocks up to 3ft high. As usual, NSKK men were on duty to slow down competitors. Many riders, however, imagined that 15mph was slow enough, so the MC man took a hand, too, at making them go gently. In an International riders can foot as much as they like—only keeping to time counts. Thus, the method here was to go at a bare walking pace and use one's feet to keep the machine away from the worst rocks. The German sidecar men, with their wide chassis and their sidecars on the right, plus, in







L-R: "A bullock cart waits while T Mooney (497cc Ariel) passes through the village." "George Rowley (347cc AJS) finds it necessary to use his feet on a narrow, rocky section near the St Kolomann check. On the left can be seen the pine trees that have been laid

down to cover the mountain stream." "Where a sidecar is more stable than a solo. H Zuur (600cc BMW sc) has to wait to allow L Wohlfart (245cc Zündapp) to regain an even keel after a fall on the loose stones of the 'road'."

many cases, transverse-twins with a cylinder protruding to the left, were in a bad plight, and nearly all of them had to stop and heave their machines. British drivers, with their ultra-narrow chassis, large ground clearance sidecars on the left, were much better off, and a number got through non-stop. Harold Tozer (496cc BSA sc) was as neat a could be, and so was Signor Gilera (600cc Gilera sc), who, having his sidecar on the right, sensibly drove his sidecar wheel on to the tree trunks. Both J Bovee (348cc Velocette) and Sgt-Major Mackay (347cc Matchless) had machines that showed relics of earlier tosses—smashed head lamps, number plates and so on. R Clayton (343cc Triumph) was much too fast until yelled at. This was not to be wondered at, because it was difficult to believe that such a section lay just around the corner. Tiffen (Velocette), of the British Vase 'A' team, was seen to have much wrong with his tank—which a little later caused his retirement. Sgt O Davies (Matchless) toppled against the bank. Colin Edge, on another Matchless, made a particularly neat showing. CR Bates (348cc BSA) was very careful and neat, but no sooner had the words been jotted down in the MC notebook than over he went! George Rowley (AJS) looked quietly serious. An action typical of the spirit of the International Trial was F Diez (597cc BMW sc), a German, stopping before the section to let Lieut Riley (Norton) go past. H Peterssohn (600cc Zündapp sc) got frighteningly close to the sheer drop into the stream, but probably was so busy trying to hold his outfit that he did not see what would have happened if his outfit had kecked up. Almost immediately afterwards there was a 1 in 5 descent with a rock-strewn surface like a cross between those of Hollinsclough and Washgate. This, for the late numbers, was treacherous to a degree, for a thunderstorm suddenly raged, causing the visibility for some to be little more than yards, so dense was the rain, and then almost equally suddenly ceased. Many riders encountered no rain at all. While a number skidded and fell on, this atrocious descent, the rain had the advantage of binding some of the loose tracks that were to follow. In spite of it all, a number of riders gained ten minutes on the 23 miles! CN Rogers (Royal Enfield) ran off the course, yet still was on time at the ensuing check.

Then followed a long machine-shattering climb through pine woods with tree trunks laid across the track every few yards, and so back to Salzburg. Here it was learned (as was expected!) that a number of riders had retired and that Macchi, of the Italian Trophy team, had lost marks on time. Thus Britain and Germany, assuming neither had lost marks, were left to fight out the destination of the International Trophy. No fewer than 23 retired, making a total for the first two days of 38 out of 266 starters. Of the Vase teams, Germany 'A' and 'B', Italy 'A', Great Britain 'B', Holland 'A' and 'B', and Sweden were still without loss of marks. Italy 'B' had lost 14 and Great Britain 'A' 100. In the Hühnlein competition the remaining 'full marks' British teams were the CSMA, Sunbeam, South-

Eastern Centre 'A' and War Office 'A', while among the clubs still in the running for the Bowmaker Trophy were Sunbac, CSMA, Coventry and Warwickshire, Birmingham,





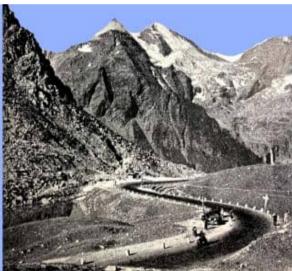


L-R: "Len Heath (497cc Ariel) and HN Toomey (498cc Panther), the latter disguised by a crash helmet, have a few moments to enjoy the sunshine and a cigarette while waiting their turn to enter a check." "B Nocchi (500cc Guzzi) ploughs his way through the mud that was encountered in the woodland section after the check at Ungenach." "This is no scramble picture, but merely a shot of the rough going that the International competitors had to tackle. Leading the group are HR Taylor (997cc Ariel sc) and J Ranieri (500cc Sertum)."

Bradford, Sunbeam 'A' and 'B' and Carshalton. WEDNESDAY Except for the 1937 trial in Wales there has probably been no day in any of the last seven or eight Internationals that has been so easy as Wednesday's run. It was good going almost throughout the 277 miles—more of a see-the-sights tour, only the speeds were so high that competitors, except at checks, had no time to see anything other than the strip of road in front of their machines. The run outward was simply a main-road trip to the much-publicised Grossglockner Pass, which climbs from 2,640 feet at Fusch, the time check that preceded the check, to nearly 8,000 feet at Fuscher Törl, 12 miles away; this so far as competitors were concerned was the summit. En route to the hill there were various incidents, as might be expected. TN Blockley (496cc BSA) took a toss and unfortunately hurt his head, though not seriously. Both C Cavaciuti (500cc Gilera) and George Eighteen (347cc Matchless) came off on a wooden bridge (many bridges are of wood, some in the wilds rickety affairs built crudely out of tree trunks). What happened was that after setting off on an apparently perfect dawn competitors encountered dense mist, which made the boards slippery, and over many of them went! In the space of perhaps a dozen miles no fewer than three level crossings were encountered, and for some competitors it was a case of waiting at each. However, the organisers have such matters properly weighed up. At every level crossing there were NSKK men. One a couple of hundred yards down the road would wave a yellow flag as a warning that the crossing was shut, nearer the crossing was a man with a red flag, and finally there were officials to note down how much individual competitors were delayed—this at every crossing in a part that seems to have hundreds of them. For many miles the road taken runs beside a river. Curve followed curve, and as the average speed necessary was 34mph for solos over 250cc there was some hurrying. Immediately after one level crossing there were all the thrills

of a massed-start road race—ten or a dozen 500s screaming off the mark and, incidentally, almost filling the twisty main road, which was open to other traffic! Long before the Grossglockner was reached there were glimpses of snow-capped peaks. To describe the Pass itself is difficult. The road winds and hair-pins, climbing—ever climbing—right to snow level. So perfectly engineered is it nowhere is the gradient more than 1 in 8, while the surface up to Fuscher Törl, where the check was held, is magnificent non skid tarmacadam with the 14 hairpin bends smoothly paved with granite setts. The scenery is almost unreal, everything is so vast. Around are dozens of mountain peaks, some stark bare-rock, others capped with snow. Here and there is a glacier. Down in the valleys are clumps of conifers and the bright green of grass fed for months on end with snow water. As a test the climb was magnificent. Solos over 250cc had to cover the 12 miles in 26 minutes (28mph), sidecars over 350cc had to average 25, and 250s 25mph. And as the road climbed steadily higher, the competitors found that one by one their 'horses' strayed from the stable. Carburation became over-rich. George Rowley, who for safety's sake was running on a rich mixture, even at valley level, found the mixture became so rich that his AJS ran lumpily and with a throaty noise. British riders as a whole made a polished show on the hairpins...At the cheek few,





"The wild beauty of the Grossglockner Pass with its magniftcently engineered road is seen in this view from one of the resting places provided for tourists—but not for competitors in the trial!" (Right) Near the summit of the Grossglockner, where every tourist stops to admire the magnificent mountain views which are on every hand."

if any, competitors had wore than 4 or 5 minutes in hand. With many it was a question of a quick glance at the scenery, a sigh that they weren't on holiday and could not stop, and into the check...RR Meier (343cc Triumph) had his silencer partly adrift. A German rider in front of him left his time card at the control, so the British rider took it on. Like many others, GE Godber-Ford (347cc Sunbeam) had no time in hand and had to go straight into the check. It was interesting here to note how often a German, knowing what those at the control were calling out, would tap a British rider on the shoulder to

indicate that it was time to check in. One visiting rider had his card stamped a minute early, but the German who was riding alongside would not have it; he made the official cross out the time on the card, initial it and stamp the card afresh. Many were worried as to whether they would need lights at two tunnels that would be encountered a little farther on. The first was short and even eyes accustomed to the glare of the light in the mountains could see their way, while the second had overhead lights throughout. The rest of the course was easy. Except for the descent of a long hill, cross-gullied and 1 in 5 in places, and an extraordinary storm encountered by some competitors near the finish, it was largely, scenic tour. At the finish it was found that the Trophy team position was unchanged; it remained Britain versus Germany. In the Vase competition six teams were still clean. Germany 'A' and 'B', Italy 'A', Britain 'B' and Holland 'A' and 'B'. The CSMA were out of the running for the Club award, while of the British teams only the Sunbeam Club, South-Eastern Centre 'A' and the War Office 'A' had still lost no points in the Hühnlein competition. THURSDAY Difficult though Tuesday's route had been, Thursday's, by common consent was worse. Check after check was 'tight'. Only on one, the last of the day, did competitors find they had a certain amount of time in hand. The course lay in the Tirol and was nearly 300 miles in length with 12 time checks. All the inter-check stretches contained really difficult going—generally of track laid cross-wise with tree trunks. Lieut Money (BSA), who was in the running for a silver medal, started, but as he had been recalled by his regiment immediately turned off the course and made for the frontier. Trouble began early. Poor Colin Edge (347cc Matchless) was in dire trouble, and according to Dr Galloway, should never have started. He was running a temperature of 104°, but carried on. JE Breffitt (348cc Norton) had a slow puncture, tried to get the wheel out, found the spindle bent and retired. From the start there were 27 miles, many of them among woods, over which solos exceeding 250cc had to average no less than 29mph. Later there was one section at 35mph! The riding conditions were dustier than ever. Just before lunch ten competitors missed the route, among them Vic Brittain (490cc Norton) of the British Trophy team. This section included the Aachen Pass, a secondary road of no great difficulty barring its length and steepness. The climb starts at a village and becomes progressively steeper. For a yard or two the gradient approaches 1 in 3, buff there are no hairpins—merely gentle bends. This, incidentally, is the second steepest climb in the Alps. At the lunch check there was difficulty over petrol supplies. There was not the usual fuel stop with all the petrol companies represented. Instead, there was a German Army lorry with only a small quantity of fuel obtainable for each competitor. George Rowley (AJS), of the British Trophy team, found that he was not being given enough—not sufficient, at all events, to make it certain that he could reach the next fuel stop. He protested and finally got what he wanted. Flook, the Trophy sidecar man, was given only five litres. This was not nearly enough. Finally, and with waste of time, he got seven litres, but that was not sufficient. As he expected he ran out. He begged some from the driver of a car. At two checks he was late and lost four marks. Thus, unless his protest was allowed, only the German Trophy team

retained its clean sheet. Soon after lunch LEC Hall (499cc Rudge sc) retired with gear-box trouble. He managed to limp back to the finish, albeit with the noise of



L-R: "A good idea of the difficulties that the sidecar competitors had to face can be obtained from this pictuire of J Döbereiner (750cc BMW sc) tackling the run into Sudentenland." "Miles of rough tracks passing through magnificent wooded country were the feature of Tuesday's run. Here is L Ridgway (496cc BSA) going hard to arrive at the St Koloman check on time." "A typical scene at a check with Nazis operating the control and a policeman looking on. No 6 is Cpl. GM Berry of the British Army Norton team."

agricultural machinery! With the rough going and high speed schedule tosses were frequent. A Ascari (495cc Guzzi) finished the day with two black eyes. Miss Cottle (249cc Triumph), too, came off, but was unhurt and continued to make the trial look simple. T Mooney (497cc Ariel) was one of those who ran out of petrol, but in his case the cause was a loose union. The last but one section was vile, especially a very narrow, extremely steep descent. Here there were the usual tree trunks set across the track at frequent intervals in order to prevent it being washed away. AA Sanders (343cc Triumph) had to crash over the baulks of timber as hard as he dare in an endeavour to make up time. He, too, was in trouble over petrol, and at the last check had to beg some from a German competitor. Sun and shadow was a cause of trouble on this last section. They caused Allan Jefferies' downfall—literally. He mistook a deep pot-hole for a shadow, went on to describe a parabola, and his Triumph fetched up pointing in the opposite direction. Allan said, 'If I had banged my head a little harder I might have got on the wrong way round!' He added ruefully, 'And it was the smoothest bit of the whole day...' At the finish the comment was that the day's run had been at least twice as severe as anything encountered previously. Len Heath (497cc Ariel) reported that at one check he only had two minutes in hand, while Allan Jefferies said that on several sections he found that he had to go just as fast as he could. There was considerable excitement at the finish with competitors charging straight into the check, men coming in with flat tyres, rumours of Flook having lost marks and, not least, queries as to the European situation. Competitors carried on in the usual way; filling and greasing up their

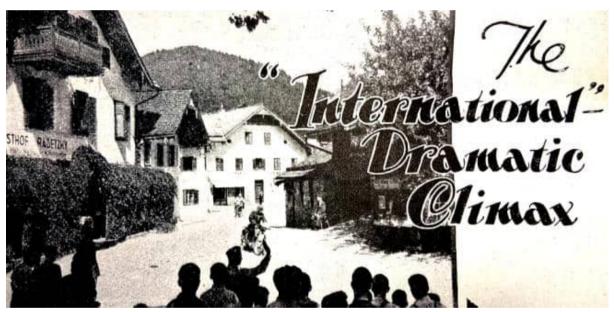
machines and checking over to see that everything was all right. It was interesting to see the methods of the riders. Both George Rowley and Charlie Rogers took care to wipe their fork nipples before using the grease gun. W Wieser (494cc BMW) cleaned the dust off his cylinder barrels with a high-pressure paraffin spray. JH Wood (343cc Triumph), of the 'B' Vase team, drained his oil tank with a mighty oil 'syringe' affair and was extremely careful to get out the last tablespoonful. Pte Wood (496cc BSA) had a bent front rim, which he would have to knock straight in the morning, and Sgt Davies (347cc Matchless) was busy removing a broken. fork spring. He got half of it off and had to leave the rest of the job until next day. W. Schlichting (494cc BMW) skidded into the finish. He had a flat back tyre, had covered some 15 miles riding on the rim, and was about all in. Incidentally, he weighs 19 stone. L Patina (BMW) also came in with a flat rear tyre. While the trial had been carrying on Major Watling, the British steward, and others had been trying to obtain information about the international situation. There was still very little news. The British Consulate at Vienna had stated that there was no official warning to British subjects to leave



L-R: "Under the eyes of many other important officials, Major Watling gives the starting signal to BQMS E Smith (347cc Matchless), No 131, and G Dotterweich (342cc Victoria, No 130. Behind is GE Rowley (347cc AJS) of the British Trophy Team." "This party of Hitler Youth and Nazi officials found this a pleasant spot from which to watch the trial." "Allan Jefteries (498cc Triumph) wearing his usual cheery smile and S Lück (494cc BMW) pose for the camera while officials stamp their time cards."

Germany. On the other hand, French nationals had been told to go. Also there was news of the increase in the British bank rate, the fact that two English competitors with official posts had been recalled to Britain, and much coming and going of high officials of State to Berchtesgaden nearby. There was, however, still nothing sufficiently definite to enable the heads of the British contingent to advise competitors to leave the country. As each left the marquee he was told that the situation was grave, and if he wished to make tracks for home he could do so. It was also said that Korpsführer Hühnlein had stated that he would see that all visiting riders were escorted to the frontier. Later Obergruppenführer Kraus, the president of the jury controlling the trial, made a similar announcement when the jury met. On the other hand, at least one of the British contingent remembered the immense difficulties of getting back to England from Grenoble on the 1914 Six Days. That was merely passing through France, and this time

competitors would have to go some 200 miles to the nearest frontier, cross Switzerland and then pass right through France—a total of some 800 Miles to Calais. To decide what to do was difficult in the extreme. What helped to clear the air was a telegram from Mr Mansell to the Norton riders stating, 'Advise return immediately'. Late on the Thursday night there was a round table chat between Major Watling, Colonel Bennett, Mr. Loughborough and Mr Peter Bradley, the manager of the British teams. Major Watling took the initiative and decided that the riders should return the following morning. This came as something of a bombshell to the German officials. However, they offered to provide an escort car, make arrangements for a petrol lorry and let the competitors concerned take their machines out of the marquee early the following morning. Hardly had Major Watling made his decision than its wisdom was confirmed by a telegram he received from his office. This read: 'President instructs me inform you British Consul-General in Berlin has received instructions to warn all British subjects to leave Germany immediately.'" Colonel Bennett, who had received no official instructions from the War Office, decided that his men, the Army contingent, should carry on.



"Miss Marjorie Cottle (249cc Triumph) follows K Pogner (248cc Puch) through a pretty little village typical of the country in which the International Trial was run."

FRIDAY and SATURDAY Early on Friday morning the British contingent, with the exception of the Army riders and four others, collected their machines and packed up. There were a few dissentient voices—people who wished to stop. The vast majority, however, once they heard the contents of the telegram received by Major Watling, realised that the sane course was to leave the country, doing so by the shortest route to the Swiss frontier. At 6am the huge cavalcade was off, bound for Innsbruck, Landeck and Feldkirch. This was earlier than the German officials had anticipated. The petrol lorry was fixed for 8am and obviously would be slower than the motor cycles and cars of the British contingent. Hence the petrol arrangements seemed valueless, and, in addition, there was no escort car. Although many would, no doubt, be able to get to the

border without having to fill up, this would by no means apply to. everyone, so Major Watling, in company with The Motor Cycle representatives, Mr Geoffrey Smith (Managing Editor) and Mr Bourne (Editor), searched around Salzburg to ensure that there was petrol available near the Tyroler Hof, Innsbruck. This was duly arranged and Innsbruck advised by telephone. The Bentley car with Mr Geoffrey Smith and Major Watling aboard and Mr Bourne and his Triumph Twin then followed the route taken by the British contingent to act as whippers-in in case any one had trouble. All went well. Petrol was available at Innsbruck and, incidentally, at one or two pumps en route, The only trouble was a cloudburst encountered near the Arlberg Pass, which soaked many of the riders. At the Customs, just after Feldkirch, the officials in charge were helpful in the extreme, and all were through and safely over the border into Switzerland in a matter of minutes. The majority stayed at a village a few, miles farther on. Here people were kindness itself in finding rooms, and even—at the little hotel where the main contingent pulled up—in hurriedly producing bottles of local wine 'on the house'. Considerable surprise was expressed by members of the British teams that four British competitors should have stayed behind. Later these and the Army men also left Germany and crossed into Switzerland. The trial, which in our guide a fortnight ago was called 'The Trial That Is Different', was proving very different. It was continuing, but with a depleted entry and much of it without international flavour. For the Trophy contest there remained Germany and Italy. The latter had lost marks earlier in the week. Germany, too, was to lose marks—30 as against Italy's 43. Thus there was no race over the scramble course to determine the destination of the Trophy: Germany won on. points. For the Vase, however, there was a tie, and the result of the scramble was that Germany 'A' won with no marks lost and Italy 'A', also with no marks lost, were the runners-up. The Hühnlein Trophy was won by the DDAC 'A' (no marks lost), with the SS 'B' team (no marks lost) as. runners-up. The DDAC (Munich) won the club contest for the Bowmaker Trophy. Thus in disappointing fashion the 21st trial of the



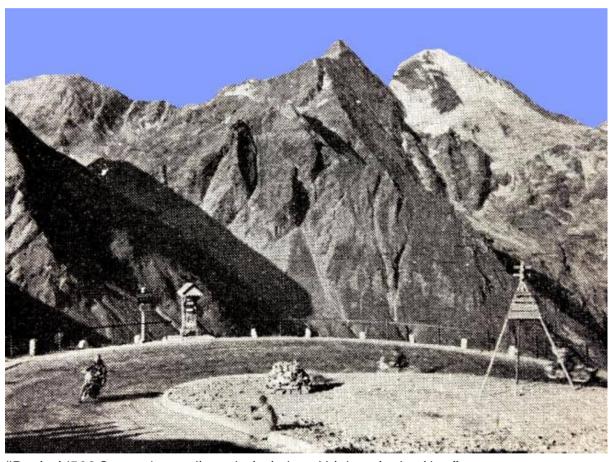
L-R: "This stone hut situated at the summit of the Grossglockner Pass marks the end of the great climb of nearly 8,000 feet. Inside the building is a tablet to the memory of those whose enterprise it was." "Typical of many villages through which the trial passed was Hof. The machines are lightweights—a Puch and a DKW—ridden by P Günther and G Sandküller." "Good roads again at last, and not far from the end of the tiring first day's run. L Heath (497cc Ariel) leaves the rough-stuff behind at Vökla."

series came to an end. **TEAM POSITIONS** (end of fourth day). International Trophy. First—Germany: R Seltsam (494cc BMW), O Sensberg (245cc DKW), W Fähler (245cc DKW), Müller (596cc BMW sc); marks lost, 0. Second—Great Britain: GE Rowley (347cc AJS), A Jefferies (498cc Triumph), VN Brittain (490cc Norton), HJ Flook (596cc Norton sc); marks lost, 4. Third—Italy: E Villa (500cc Gilera); Macchi (600cc Gilera), L Gilera (600cc Gilera sc), N Grieco (250cc Sertum); marks lost, 27. International Silver Vase. First—Germany 'A': J Forstner (BMW), F Linhardt (BMW), H Lodermeier (BMW); Italy 'A': G Benzoni (Sertum), O Francone (Sertum), A Brunetto (Sertum); Great Britain 'B': CN Rogers (Royal Enfield), WA West (Ariel), JH Wood (Triumph); all three teams lost no marks. Second—Holland 'A': G de Ridder (BMW), J Fijma (Ariel), J Moejes (BMW); marks lost, 14; Third—Holland 'B': J Bovel (348cc Velocette), B van Rijn (348cc Velocette), Renooz (300cc Eysink); marks lost, 100. Fourth—Germany 'B': J von Krohn (Zündapp sc), J Becker (Zündapp sc), R Grenz (Zündapp sc); marks lost, 102. Hühnlein Trophy Competition—War Office 'A': Pte JL Wood (496cc BSA), Cpl AC Doyle (496cc BSA), Sgt FM Rist (496cc BSA). NSKK 'C': Ilgenstein, Schaumburg, Riedal; NSKK 'D': Beranek, Walz, Suchanek; NSKK 'M': Riechenberger, Kussin, Luthardt; SS 'B': Low, Rietz, Hainz; WH 'A': Stoltmann, Maciejewski, Loffier; DDAC 'A': Steinberger, Dahmeyer, Charbonier; all the above teams lost no marks. Bowmaker Trophy Competition—Birmingham MCC: GF Povey (Ariel), JJ Booker (Royal Enfield), H Tozer (BSA sc); Bradford & DMC: A Jefferies (Triumph), JH Wood (Triumph), R Wilkinson (Panther); Sunbeam MCC 'A': L Heath (Ariel), WA West (Ariel), CN Rogers (Royal Enfield); NSKK Berlin 'B': Ilgenstein, Schaumburg, Riedel; NSKK Franken 'B': Reichenberger, Kussin, Luthardt; NSKK Ostmark: Beranek, Walz, Suchanek; SS Main 'A': Löw, Rietz, Hainz; DDAC München: Steinberger Hahmayer, Kohler; all the above teams lost no marks. SIXTH DAY—FINAL RESULTS. International Trophy Competition, 1, Germany, 0 points lost; 2, Italy, 43 points lost (Britain 4 points lost up to withdrawal on fifth day owing to European situation). Silver Vase Competition. 1, Germany 'A'; 2, Italy 'A' (Britain 'B' no points lost until withdrawal on fifth day). Hühnlein Trophy Competition. 1, DDAC 'A'; 2, SS 'B'; 3, NSKK 'C' (British Army BSA team no marks lost up to withdrawal at end of fifth day). Bowmaker Trophy Competition. 1, DDAC München; 2, SS Main 'A'; 3, NSKK Berlin 'B'."



"DISAPPOINTING IS A MILD WORD to use about last week's International Six Days Trial held in Germany. The event, the 21st of the series, promised to be the most gruelling, and therefore the most interesting, of all. As it was, however, it almost ceased to be an

'International' after the fourth day. The cause, it need hardly be added, was the European situation. In the trial—in everything connected with it—there was peace and friendliness. Motor cycle sport had brought the nations together, and nothing could be more impressive than the helpfulness of one competitor towards another. Of different nationalities they might be, but they were bound together by their common love of motor cycles and by competing side-by-side encountering the same difficulties. The trial was difficult—exceptionally so. None except those who have actually competed can appreciate the true meaning of the International Six Days Trial—of covering anything up to 300 miles a day over minor by-ways and woodland and mountain tracks, doing so at average speeds which to the normal individual seem suicidal...Much of it was in the nature of an Alpine Grand Prix. As a test of machines and riding skill the International is supreme among motor cycle trials—



"Ranieri (500 Sertum) rounding a hairpin bend high up in the Alps."

none more so than the trial which Germany staged last week. Thus it is an especial pity that the European situation should have caused the withdrawal of teams and sent nationals hurrying back to their own countries. When the British teams withdrew—after the fourth day's run—there was still good reason to hope that two at least of the four main trophies would be won by Britain. The organisation of the trial as a whole was excellent. Before the actual start it was a little patchy, and almost as if the German governing body had hardly expected the trial to be held. On the other hand, it has to be

remembered that only a week previous there had been the German Grand Prix. The route-marking in particular was magnificently carried out, and the way in which an NSKK man was on duty at every danger spot, even the most inaccessible, was most commendable, for it did much to eliminate the dangers inherent in such an event. The main lapses were in respect of the petrol supplies on the fourth day and in the difficulties competitors encountered in obtaining petrol on the way to the trial. Britain can well be proud of the performances of her teams up to the time of their withdrawal. Their riding was magnificent and they handled their mounts with the restraint and care that are the sine qua non with first-class International team men. Next year, let us hope, there will be a true International carried to its proper conclusion and under conditions not only equally friendly so far as the trial itself is concerned, but with Europe showing the same spirit of friendliness that was such an outstanding feature of the event."

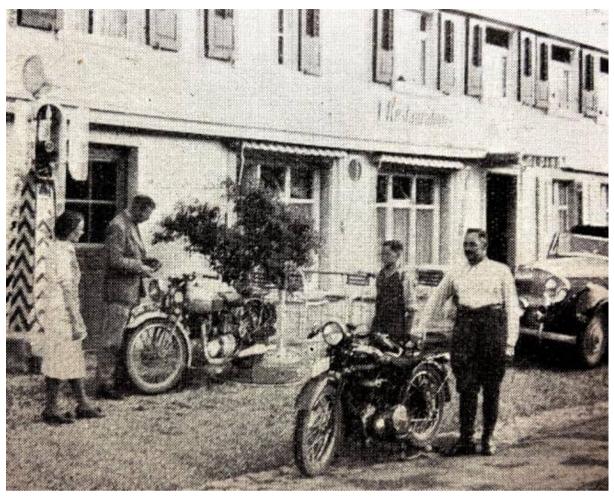
"WHEN THE GREAT WAR broke out in August, 1914, the International Six Days Trial was due to start from Grenoble, and though our men were on friendly soil, many of them had a tough time getting home. There were four teams entered for the Trophy—British, French, Swiss and German. The British team consisted of CR Collier (Matchless sc), WF Newsome (Triumph) and TC de la Hay (Sunbeam). The Swiss all rode Motosacoche machines; the French, Clement and Terrot bicycles and a Violet-Bogey cycle-car; and the Germans Wanderer and NSU solos and an NSU sidecar. The 65 entries included J Stuart White on a Bradbury. The main problem of return was fuel, all petrol supplies having been commandeered a by the French Army. Our representative happened to be a good linguist, and his journey home Was facilitated by his ability to buy odd pints of benzine at a chemists' shops!"—Ixion.



"Miss Marjorie Cottle (249cc Triumph), chatting with 0bergruppenführer Kraus, president of the International Jury, at the top of the Grossglockner. Miss Cottle made a magnificent performance in the trial."

"TO REVIEW THE International Six Days after all that was written in last Thursday's issue would be superfluous. Everyone knows what happened and how on Friday, the fifth day, the British contingent withdrew from the trial, left Salzburg and hurried to the Swiss frontier and home. It is probably difficult for anyone not among the party to realise how cut off the British contingent was from knowledge of what was going on between the capitals of Europe. All at Salzburg sensed that there was a crisis, but how grave it was none knew. As we said in our description of the trial, the German papers revealed little, those British papers available were two days old, and wireless reception of the English news bulletins was next to hopeless. Whether the hundred and more British riders, passengers and camp followers would have remained right until the Friday had they been aware that the bulk of the International Press had left Berlin on the Tuesday evening, is a question that cannot be answered. The Press do not hurry out of a country without very good reason. As it was, however, the riders' job was to carry on until told to leave. This they did magnificently. Looking back on the necessarily anxious days one cannot help smiling at the recollection of what happened on the evening the German-Russian pact was announced—how Germans came along to Englishmen, shook them

by the hand and said joyfully, 'Now we shall have peace!' On Thursday, just before midnight, the decision was reached that the British contingent should make for the German-Swiss frontier by the shortest route. Colonel Bennett, who had no instructions from the War Office, decided that the Army teams should remain. What happened in this case was simply that the official intimation that he and his men should return was delayed en route. When it did arrive they, too, left for Switzerland. All this is past history, and instead of reviewing the trial as such I will endeavour to record a few personal impressions. We have already paid well deserved tributes to the riders. I watched them at many points, sometimes on the 'stickiest' sections of all. Our Trophy team was outstanding. Never once did I see a Trophy man thrashing his machine, nor did I see any of the four taking a risk. The unflurried way they forged ahead on, say, the St Koloman section, the worst on the second day, and seemed, almost without thought, to miss all the obstacles that might damage their machines, evoked my whole admiration. On the Grossglockner they were again outstanding. Whereas many riders thrashed their engines and scrambled round the fourteen hairpin bends, our Trophy team gave the most polished display one could possibly imagine. A phrase I heard several times was, 'You can always tell a Trophy team man.' This remark was made by Germans as well as Englishmen. Three years ago, when the International was last held in Germany, I was impressed by the general standard of riding, particularly by the way the Germans handled their BMWs and Zündapps in the rough. This time, perhaps because some of the going was as bad as that of an exceptionally difficult English half-day trial, the riding did not seem to me to be nearly so good. The British riders on the average were easily supreme in the mud and over the rocks. The Italians, for the most part, were unhappy. A number had little idea of how to tackle such hazards, and seemed to keep to time by averaging inordinately high speeds on the road portions. Seldom have I seen riders thrash their machines more. Of course, there were many who started in the trial with little idea of what a modern International means. Somehow or other the impression that these trials are merely high-speed tours in glorious country still seems to exist. The facts are, as we have tried to convey in describing the event, that the modern trial as held in Germany is an Alpine Grand Prix with sections just about as bad as any included in British sporting trials. One, in my opinion, was worse than any I have previously encountered in a trial either in Great Britain or abroad. And this, it has to be remembered, had to be ridden against the watch. The trial is an event suitable only for the most experienced—one that taxes even such men as Allan Jefferies, Vic Brittain, Len Heath and Co. Perhaps the most amazing show of all was that of Miss Marjorie Cottle, who rode magnificently."—Torrens (AB Bourne, Editor of *The Motor Cycle*.)



"The Editor with his Triumph Twin after crossing the border into Switzerland. In the foreground, alongside a Condor machine, is a kindly Swiss hotelier who helped the Editor change a fork spring."

"JUST IMAGINE SOME 30 British soldiers passing through a troop-infested part of Germany at midnight! This is what happened to British Army teams on the way back from Salzburg and the International. Seldom has there been such a nightmare ride. What had occurred was that the telegram instructing the Army teams to return did not arrive until about noon on the Friday. At that time Colonel Bennett and AE Perrigo, the BSA team manager, were having a swim, while the Army riders were naturally out on the course completing the fifth day's run. Immediately the men arrived at the finish they were told to fill up, check in so that they had credit for covering the day's run and then, instead of going into the marquees used for storing the competing machines, turn round and ride into Salzburg. Having covered 261 miles of trials course that day the men had to get ready and set off on a 250-mile ride to the Swiss frontier—this when almost all they wanted in the world was to get to bed. At the Hotel Pitter there was an official sendoff with Korpsführer Hühnlein saying good-bye and expressing his great appreciation of the British Army teams' sporting spirit. About 5pm the contingent set off escorted by Colonel Grimm, who decided that the party should go by autobahn to Munich and thence to Bregenz and the frontier. The few civilians who had remained at Salzburg

joined up with the party. All went well as far as Munich, except that already the dog-tired riders were fighting against falling asleep in their saddles. At Munich there was a stop for food. In addition, one of the civilians became lost and the Army folk had his Customs papers! Troops were en-countered by the thousand. Some 30 miles from the frontier the party was stopped, and it needed all the German colonel's arguments and waving of his official papers to get the party through; without him the British contingent would undoubtedly have been held up. By this time the whole party was just about asleep. Car drivers took turns at the wheel; motor cyclists every now and then sent up showers of sparks as they dozed off and their footrests touched the ground—to wake them up again. Happily there were no casualties. Seldom have men been more thankful than when at last they were over the frontier and able to get to bed. The papers of the missing civilian were left at the frontier and all other frontier posts advised of the fact by Colonel Grimm. Later it was reported that he, too, was safely through."—Nitor.

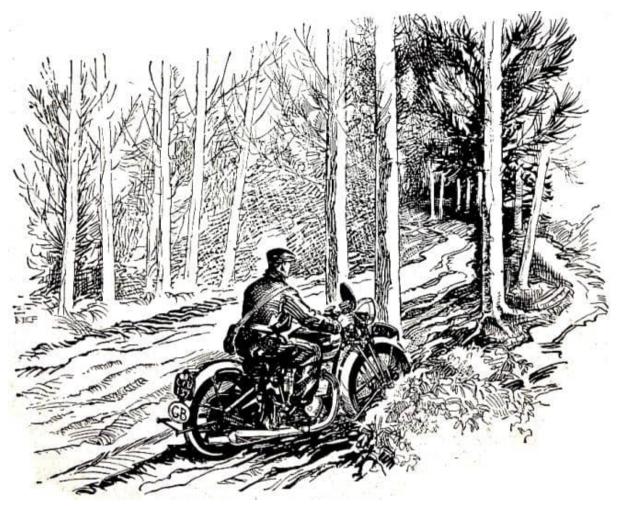
"THE BRITISH STEWARD at the International Six Days Trial, Major HR Watling, has made the following report to the Competitions Committee of the Auto Cycle Union: 'The International Trophy and Vase teams chosen by the ACU (in charge of the team director and manager) arrived at the headquarters of the Trial in sufficient time to complete the last stages of their training and reconnaissance of the routes. They weighed-out preparatory to the start on Sunday, August 20th, at 5am, and the next day—as British Steward—I formally started the event. During the weighing-out it was clear that, although the personal courtesy of the officials of the ONS and NSKK towards British competitors remained undiminished, the organisation was neither as elaborate nor as smooth in operation as previously. There were obvious improvisations due either to the necessity for economy, or as a result of hurried preparation for an event which the ONS really did not anticipate would take place. Nevertheless, the Trial started without incident. But late on the Monday night the news of the proposed Non-Aggression Pact between Russia and Germany (accompanied by the almost universal comment from our German hosts 'that there would be no war') was disturbing to the British mind. When on the Tuesday evening news was received of the policy of the British Cabinet it was inevitable that, in this new development, we should measure for ourselves the time within which some irrevocable act would provoke hostilities, and a note was taken of the engagement of Herr Hitler to speak at Tannenberg on the following Sunday—the day after the conclusion of the Trial. Wednesday brought no relief from the growing anxiety, and the vulnerable position of British competitors, officials and 'camp followers'—who numbered over 100—became my grave concern. The difficulty of making a wise decision was increased by the absence of news from home and the inability of British Consular representatives in Germany to give any definite advice or accurate information. Finally—late on Thursday evening—after consultation with the various team officials I decided to advise British competitors to withdraw from the event, and expressed my great regret to the ONS that I felt to continue to enjoy their hospitality

might prove a mutual embarrassment. Very willingly, the ONS made arrangements for our evacuation in the greatest possible comfort, and I desire to place on record their cordial assistance and friendly attitude throughout. It was, indeed, a bitter moment for me not only to make a decision for the protection of the British party, but to refuse the friendly offer of the ONS of 'safe conduct' if we remained to the conclusion of the trial. The Committee will appreciate that I had in mind the desirability not merely of leaving Germany before the outbreak of war, but of giving the British party an opportunity of regaining British soil before that event. On Friday morning I was informed that the British party had left. Actually, two or three private competitors remained a further day. However, after revising the petrol arrangements for the party I acted as a sort of rearguard to the British party and—after being informed at the German frontier that the whole of the party which had left Salzburg had preceded me into Switzerland—I myself entered the Swiss frontier at about 7.30pm on Friday, August 25th. That my decision (for which I was requested to accept responsibility to the ACU and which responsibility I fully accepted) was correct was amply evidenced by the fact that instructions to the War Office teams to withdraw were actually despatched from London some hours before I myself took a decision. I should like to place on record my appreciation of the cordial co-operation of the team director, manager and captain, and pay a tribute to the behaviour of all British competitors, both civil and military. With the Army teams the greatest liaison was maintained, and the presence of Lieut-Col. Bennett and Major Oldfield was not only appreciated but was most opportune. As regards the administration of the event, I must place on record—for future reference—the fact that the President of the Jury, as representing the ONS, took a different view of the functions of the Jury from that of his colleagues. In short, he desired to amend the rules and conditions of the entry, whereas it was maintained against him to be the duty of the Jury to interpret the rules as they were printed, and the conditions under which riders made their entry. I took the view that the promoters were not entitled to do more than recommend changes in the rules and conditions of entry to the CSI, which might appear desirable as a result of experience with regard to such vexed questions as (a) what is 'outside assistance'? (b) Should riders be permitted only to use tools and materials they themselves carry? (c) Should there be an extension of the number of marked parts? (d) What are the obligations of riders as regards lighting equipment? And (e) purchases of petrol and spare parts, etc; (f) the efficiency of the lighting equipment throughout the trial. Again for the purpose of record, I might say that the whole trend of thought on the part of the ONS was towards a further limitation as to what repairs could be made to the machines and what equipment should be available to the riders for the purpose of executing such repairs—in other words, there was a tendency to restrict the rules as if for a road race rather than a reliability trial. In conclusion, I need only formally report that both the International Trophy and the International Silver Vase were won by Germany, which therefore gains the right to organise the event upon the next occasion when circumstances render this possible."

## A Day in the Life of a Motor Cycle Journalist

"Behind the Scenes on the International Six Days: Highlights of a Day that Begins at 4am and Ends at Midnight. By AB Bourne, Editor of *The Motor Cycle*.

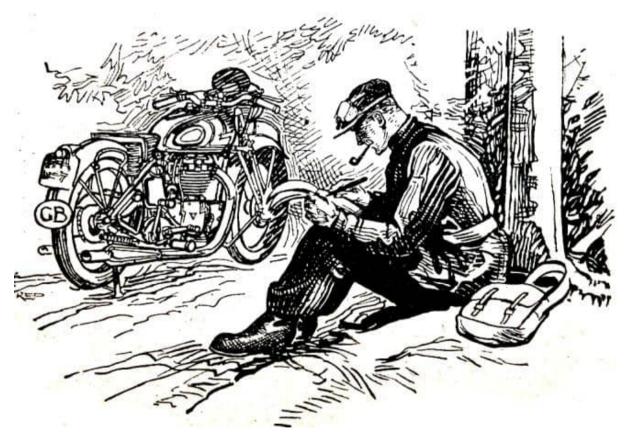
LONDON IS OVER 600 MILES AWAY. At 6.35 there is the first of my telephone calls—if it comes through all right. At the other end of all those miles of telephone line there will be my secretary and a man who knows just about all there is to know about trials —'Paton'. The latter, with his quick brain and wide knowledge, will be able to ensure that there are no errors in the transcription. What is all this about? It is a glimpse of a press-man's life on a Six Days, the recent International. I have been up since four o'clock in the morning. At that horribly early hour I toyed with cold ham, fried eggs, and rolls—toyed is the word. My Triumph twin is in the road beside the hotel. It has stood there through-out the night without lights, a practice quite customary on the Continent and in Eire, too, to judge from my last visit. Mounted just above the head lamp is a huge metal disc indicating that the machine is 'Official'. The tank is full right to the neck of the filler cap—so full that when I accelerate a fine spray of Germanic fuel, with its tang of alcohol, spurts forth. The reason it has been filled to this extent is that I cannot count upon obtaining any fuel in the course of the day. Nearly all petrol pumps bear the word 'leer', meaning empty. There is one pump in Salzburg from which I, with my official badges and special card, can obtain fuel. On the route there are, of course, official petrol supplies, but these are for competitors, and I cannot obtain any fuel until all the riders have passed through, which, from a press-man's point of view, is hopeless. No; all I can count upon for the day's run is the 4 gallons in the Tiger 100's tank. What a horrid thought. Supposing the petrol pipe started to leak!



"The going becomes rough—woodland tracks, loose stone, mud"

Supposing I took a toss and damaged the tank...It is now dawn. I kick-start and rustle down to the official starting point. Here is Major Watling acting as starter; close to him is Colonel Bennett, and here and them are various outer old friends—Peter Bradley, Peter Chamberlain, Perrigo, Bill Mewis, Freddy Neill, and others who are looking after the British contingent, For a while I watch, take in the 'atmosphere' of it all, and jot down notes about men, machines, methods, and so on. Then off on the course, riding among the competitors to learn exactly what the conditions are like. Even in the first 20 miles there are incidents to memorise. Already, things begin to happen among the huge entry. Soon the course leaves the main road to Vienna. It now lies over loose, dusty by-road in places vilely loose. More things happen (many more!). Finally, like the competitors, coated with dust from head to foot—eating dust, breathing it—I stop at a check, enter up my mental notes, and chat to competitors. With only my tankful of fuel it is impossible to cover the whole course, so the task now is to make for what is generally agreed to be the section of the day. The only trouble is that Der Deutsche Automobil Club's map of the German Alps does not show the fifth-rate roads on which the course lies. For all the map reveals, the route lies in wide-open spaces. Picking up the course afresh proves difficult, and the whole time, in the back of my mind, is the question: 'Will my fuel hold out?' However, by going along a road which the route must cross, I finally

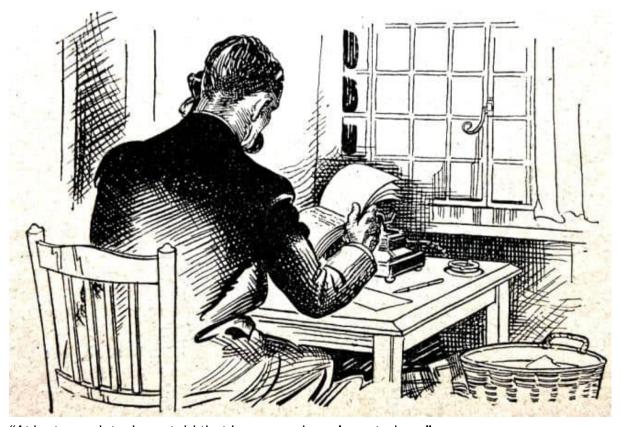
pick up the marking. Now it remains to follow the route until I come to the rough-stuff, select a good patch at which to watch, see some of the competitors here, ride on to the next bad stretch, see some more, and so on. All goes according to plan. The going becomes quite rough—woodland tracks, loose stone, mud. One patch of mud is such that I dive into the pinewoods and make a little circuit in order to miss it. Definitely a good spot at which to watch, and all to myself—no other members of the Press here at all. In view of that telephone call at 6.35pm, I settle down to describe the earlier stages of the day's run—writing against time, because at the finish I shall have all my work cut out to collect the final news and write up both it and the notes about the present section. Because there is so little time, writing becomes easy—the words flow almost too quickly for my pencil. The task is just about finished by the time the first competitors arrive.



"I settle down to describe the earlier stages of the day's run."

Then more notes. Next a hectic dash among the competitors, charging over the rough, not at my own speed, but at a speed to keep out of their way. This is a bit worrying when all the time you know that you must not crash—there are 'phone calls fixed at the far end, a description to get through...All goes well. I, alone of the British Press, have been lucky enough to experience the rough myself, and thus know exactly what the conditions are like and am able to describe the performances. There is much of interest if only I can get it down in writing and 'phone it to London. Back in Salzburg there are contacts to make, further notes to be obtained, and then to my hotel and to my

bedroom, where I find, as requested, a private telephone plugged in. I check that it works all right, inform the private exchange that I am in my room and shall stay there. No time to change and eat: a lick-and-a-promise removes some of the dust; then, with my watch on the little table, I write-up the last two lots of notes. At 6.25 the task is finished. I hurriedly read through what is written. It seems all right. Is there anything in it to which anyone listening-in on my line to London might take exception? No, nothing, unless it is that bit about No 107 tumbling off in the park at the finish and crumpling up his handlebars. However, No 107 is an Italian, not a German, so any lady or gentleman listening-in cannot fear that this is some alleged exposure of German substitute metals. I wait impatiently for the 'phone call. Will it come through? Will the line be a good one? Shall I be able to have the long uninterrupted call that is needed? Had I known about all the official and other 'phone calls there were to be that night as a result of the European situation I should have worried some more At last, very late, I was told that 'Lo-o-o-ndo-o-n' wanted me. We were through; the line was perfect. The wires stretched halfacross Europe, yet 'Paton' might have been at my elbow. Everything got across without interruption until we came to that sentence about which semi-humorously I had said to myself: 'If I am cut off it will be at this point.' We were cut off—just for a bare minute'; just the length of time necessary for anyone to check that No 107 was not a German. Strange, I think you will agree, especially as neither on that call nor on a later one was there any further interruption.



"At last, very late, I was told that Lo-o-o-n-do-on' wanted me."

"WHEN COMPARING MODERN machines with those of say, a decade ago, some people are apt to declare that present-day motor cycles are too elaborate. Many of the so-called refinements, they say, are not absolutely necessary and tend to destroy the essential simplicity of the two-wheeler. The point is also made that these 'extras' not only increase the cost of the machine, but by adding weight seriously affect performance. Modern machines certainly have many features not to be found on models of ten, or even five years ago, but can it honestly be argued that these are 'unnecessary'? Who, for instance, would willingly dispense with such features as enclosed valve gear, primary oil-baths, effective mudguarding and—once they have been tried—spring frames? Naturally, these extras increase the weight of a machine, and while there is certainly scope for manufacturers in the matter of weight reduction, thanks to the efficiency of modern power units the all-round performance of the average motor cycle of to-day leaves little to be desired."

"MR SHERWOOD, speaking with authority as headmaster of a boys' senior school, says schoolboys are not interested in the innards of motor mechanism. He is, of course, diagnosing on averages. I know two brothers in their teens, both of whom are monomaniacs about everything which cultivates velocity and emits loud noises. Both have motor bikes. The elder lad is for ever taking his machine to bits and trying to extract more knots and more noise from it. The younger lad never touches a spanner if he can avoid it. I suppose tinkeritis originates in one of our eleven primary instincts, namely curiosity; and unless a motor cyclist gets bored by his early dismantlings, a second primary instinct, that of self-assertion, takes charge, and he goes on dismantling and tuning in order to display his ability by making his model faster than any duplicates in the neighbourhood. Possibly the glands which generate energy also affect the matter; but it is odd that some men hate tools and that other men's eyes light up whenever a mechanic is called for, even if only to refit a domestic fuse. Unquestionably Mr Sherwood is right about the average lad; he listens to demonstrations of 'how it works' without much enthusiasm, and he would rather ride or drive than tune or repair. Give a small urchin a Meccano set and he will go mad about it for a few weeks or months, and clamour for the more advanced sets. Within six months the average boy swops off the lot for some new toy."—Ixion.

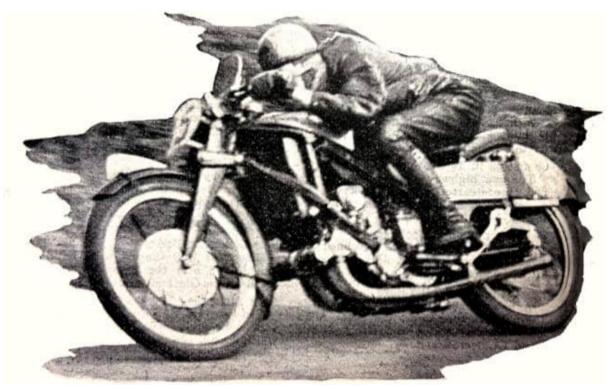




"With the sounding of the maroon the 500cc class bursts into life and is immediately headed by the two AJS 'fours'. No 2 is W Rusk (AJS) and No 1, AR Foster (AJS). M Cann (Guzzi), No 12, and LJ Archer (Velocette, No 14, are close behind."

"ONCE AGAIN THE Ulster Grand Prix has regained the title of the Fastest European Road Race. Last Saturday Serafini, riding a four-cylinder super-charged Gilera, won the 500cc class at an average speed of 97.86mph—over a mile an hour faster than his average for the Swedish Grand Prix. For the first time in the 'Ulster' the elusive 100mph lap—talked of for so many years—was achieved, and a British rider on a British 'blown four' was the first man to do it. He was Walter Rusk, and he lapped at exactly 100mph on the fourcylinder AJS. The popularity of this feat with the huge crowd of spectators can well be imagined, for Rusk is an Ulster man. In the 350cc class Stanley Woods (Velocette) achieved a popular win at record speed after a fine race with EA Mellors (Velocette), while in the 250cc event a small field provided an exciting race, the issue of which was in doubt until near the end, when LG Martin on an Excelsior was proclaimed the winner. The practising period had provided more than usual interest; there had been the performances of the two blown fours, the Gilera and AJS, to watch, DKWs in both the 250cc and 350cc classes, and the hope that Jock West would arrive with one of the works BMWs. But at the end of the period Jock had not put in an appearance. Too many of the raring BMWs had been smashed at the German Grand Prix and there was no machine available for Jock to ride. Other riders had found it rather a rush to get to Ulster from the south of Germany. MD Whitworth just scrambled back in time for both the practices, but Ernie Thomas, who had to pick up two lightweight DKWs, only arrived in time for the final evening's training. He went out on one machine, but the big-end packed up half-way round and Thomas had to walk back. By the time he had reached the start it was too late to go out on the second machine; therefore, as he had not qualified, the stewards had no option but to forbid him to start in the race. Practice speeds were high. Walter Rusk with the AJS put in some very useful laps, the best at

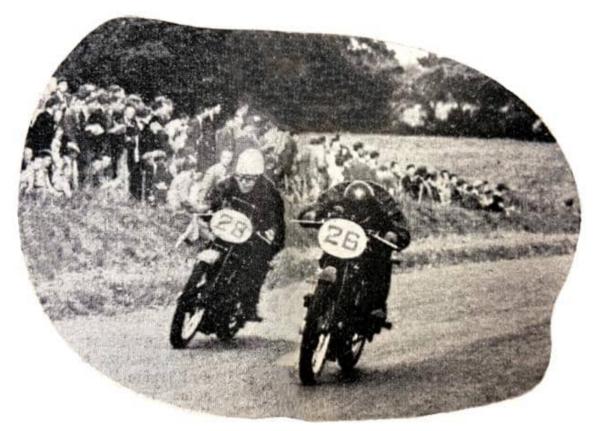
98.14mph. Mellors was the fastest in the 350cc class with a speed of 92.48mph. These speeds were possible owing to the excellent weather, and everyone was hoping for a fine race day and the prospect of old records going by the board. Race day came; it was cloudy but dry, with every prospect of remaining so. By lunch time all the vantage points of the famous Clady circuit were lined with spectators, and as the time of the race drew nearer more and more people free from their Saturday's work poured out to the course. The Ulster people are definitely race-minded. They know the riders and the chances of their machines, and they are enthusiastic about every detail that goes to make the atmosphere of a big race meeting. In the paddock at the start great interest was shown in the Italian Gilera, which was making its first appearance in a race in Britain; but the two AJS fours were also a centre of attraction. Matt Wright has been busy on



"Even with a supercharged multi the rider has to streamline himself as much as possible, and Serafini is crouching down behind his tiny windscreen on one of the fast sections."

them since the TT, and although the only noticeable alteration was the running of the two exhaust pipes on each side into mega-phones, both Rusk and Foster said that handling had been improved and power output increased. Among the private entries there was little in the way of novelty, but a fitting that caused much speculation as to its method of use was a rev counter on R Mead's Norton mounted in the saddle! **THE 500cc RACE.** While the riders were warming-up their engines and lining up on the grid, the announcer gave a brief account of each man's previous performances. Then on the stroke of 2.30 p.m. the maroon went off and with a patter of feet and roar of engines the 500cc class was away. Both the AJSs fired instantly and Rusk and Foster made the most

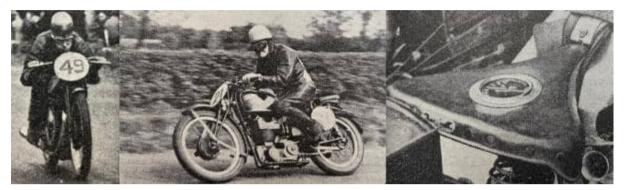
of their lead. Behind them was M Cann with his twin Guzzi, LJ Archer on a Senior Velocette, and Serafini on the Gilera. Freddy Frith., mounted on one of the pukka TT Nortons, was not in the first half-dozen, but when the first news came in from the shortwave radio that was being operated by the Royal Corps of Signals, Frith was second to Serafini at Aldergrove, and AR Foster (AJS) third. So the Italian was showing his hand already? But, no; at the end of the Clady straight it was Rusk who was leading. Frith was still second and Serafini third. In a matter of seconds these three flashed past the stands, all doing well over 100mph. How the crowd gasped, for the sight was breathtaking to say the least. Hardly had they gone than it was announced that Rusk had averaged 96.85mph, and, was only 16sec outside the record for the course—and this from a standing start! Behind these three came Archer and the Australian, FJ Mussett, on Senior Velocettes, and M Cann with the Guzzi. As usual, the first lap had brought its crop of retirements, Among them was Foster, who coasted in with an engine that was burning too much oil. But there was no stopping the other AJS in the hands of Rusk. He proceeded to outstrip both Frith and Serafini, and on the second lap his speed was 99.73mph. As he went through at the end of his third lap his lead over Frith was even greater and everyone waited expectantly for his time. Yes! he had done it. Rusk was the first man to lap the Clady circuit at 100mph—and at exactly 100mph, too! The crowd nearly went wild with excitement and Irishmen could be seen shaking hands and patting one another on the back in their exuberance, Rusk, however, had to be content with the 100mph lap, for on his fourth circuit the offside lower fork link of the AJS



"Two of the 17 Velocettes in the 350cc class in the hands of VH Willoughby, No 26, and LR Higgins, No 28, accelerate away from the Bally Hill turn."

fractured, so that he was out of the race—real hard luck that he was out of luck to be put out by such a trivial and unusual fault. Rusk's retirement left Frith in the lead with Serafini second. Try as he would Frith was unable to shake off the Italian. On one lap he would be 20 yards ahead on the next 100 yards would separate them, and on the next Serafini would be on the Norton's tail again. To those watching it was obvious that the Italian was not using the Gilera's full performance. He would shut off when passing the stands to read his pit signal, and on several occasions it was easy to hear that his engine was only working lightly. LJ Archer (Velocette) was lapping at 93-94mph and holding third position comfortably, but Mussett, on the other Velocette, after lying fourth, came into the pits at the end of five laps and did not restart. This let M Cann (Guzzi) into fourth place, but a little later he, too, retired—an oil pipe had broken at Aldergrove. From then on R Mead and JB Moss (Nortons) had a magnificent scrap for this elusive fourth place, and at the end of the race they were still hard at it. Meanwhile, a change had taken place in the leadership. On the sixth lap Serafini increased his speed and overtook Frith. In doing no he made the fastest lap of the day at 100.03mph. When Serafini came in to fill Frith was not in sight, but when be did arrive a lightning fillup considerably reduced the Italian's lead. It was a vain effort. Serafini proceeded to increase his lead and Frith, handicapped by a broken footrest, had to be content with second place. At the end of 12 laps Serafini received the chequered flag, to record a win that was loudly cheered by the sporting crowd. First and foremost because the Italian

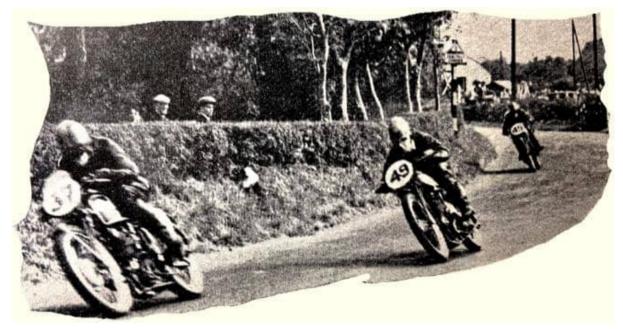
had ridden a fine race on a strange course, and secondly because he had made their GP the fastest European road race again. Frith was second, Archer third after a sound, unhurried ride, and Mead eventually established his superiority over Moss for fourth place. **THE 350cc RACE.** Out of a field of 30 for the 350cc race two men had very great reasons to hope for a win. They were EA Mel1ors (Velocette) and H Fleischmann (DKW), who before the race were running



L-R: "ER Evans crouches down to get the last ounce of speed from his Norton on one of the many fast sections of the Clady circuit." "Stanley Woods makes Aldergrove look an easy corner by finding time to grin at the photographer." "The rev counter mounting in the saddle of R Mead's Norton caused much speculation as to whether it could be read under racing conditions."

level for the lead of the 350cc European road-racing championship. Each had won 19 points. Mellors was the more favoured of the two; and although the two DKW men, Fleischmann and Wünsche, made flashing starts when the flag fell, Mellors was third away. At the end of the Clady straight Mellors was being chased by Stanley Woods and both had overtaken the two DKWs. As they came past the stands the two men were riding nose to tail, and both were pressed flat on their tanks. Fleischmann and Wünsche were doing the same thing, but about a quarter of a mile behind. The rest of the field, consisting mostly of Velocettes and Nortons, was already strung out behind, but JE Little (Velocette), MD Whitworth (Velocette) and ER Evans (Norton) were 'within sound' of the DKWs. For the third year in succession one rider, CF Reilly (Norton), failed to complete more than a few miles. Meanwhile, Mellors and Woods continued to have one of the most glorious scraps seen this year. Obviously there was very little difference in the respective speeds of their machines; They were geared a shade differently, however, with the result that Mellors could pull away a little on one part of the course, and Stanley could catch up again on another. Round they went for lap after lap with only yards between them. Then Stanley came in to refuel at the end of the fifth lap—he prefers to fill early since the accident to his hand. Making a lightning fill-up, he was away almost before many spectators had realised he had stopped, Mellors refuelled on the next lap. As luck would have it, he made one of the slowest fills of any race this year. Oil was still being pumped into his tank when the roar of Stanley's Velocette was heard approaching from Clady. The crowd were on their feet, yelling 'Come on, Ted,' or 'Come

on, Stanley,' as their fancy dictated. Stanley flashed through as Mellors was finishing his fill-up, and by the time Mellors had got into his stride again Woods had a 30sec lead. The race was all over bar the shouting, for Mellors could not hope to reduce that lead unless Woods made a mistake. Woods and Mellors were now well in front of the DKWs, which nearly shattered everybody's eardrums on each lap as they raced past with only yards between them. Sometimes Fleischman was in front, and sometimes Wünsche. Their pit stops were perfect examples of racing organisation. In contrast, some other riders, notably Whitworth, lost valuable seconds at the pits. When the field had sorted itself out after the fill-ups it was seen that ER Evans (Norton) was fifth, behind the DKWs. AJ Bell (Velocette) was sixth, and N Christmas (Velocette) seventh. Later the legs of Christmas' spring-frame ceased to work and he dropped to ninth. Whitworth (Velocette) contended with the difficulties of poor pit organisation and the



"With nearly 70 riders on the course together there were always several private scraps taking place. These three men, No 57, LA Dear (Velocette), No 49, ER Evans (Norton) and No 45, MD Whitworth (Velocette) are seen taking the Aldergrove curve in close company."

fact that the, cylinder joint was blowing as a result of a broken stud, and worked his way back to sixth place. SM Miller (Velocette), in eighth position, was beating the handicappers and throughout the race held a comfortable lead for the Governor's Trophy. Stanley Woods went through on his last lap going as well as ever; he was followed by Mellors, still nearly 30sec behind. While everyone was waiting for them to come round for the last time Mellors was suddenly noticed walking back to the start. Taking a corner at full bore in top gear—getting on for 120mph—the rear wheel had suddenly shot out from under him. How Mellors escaped at that speed without a scratch was little short of miraculous. When the machine was examined it was seen that the rear chain was off. Woods received a great ovation when he finished—and one

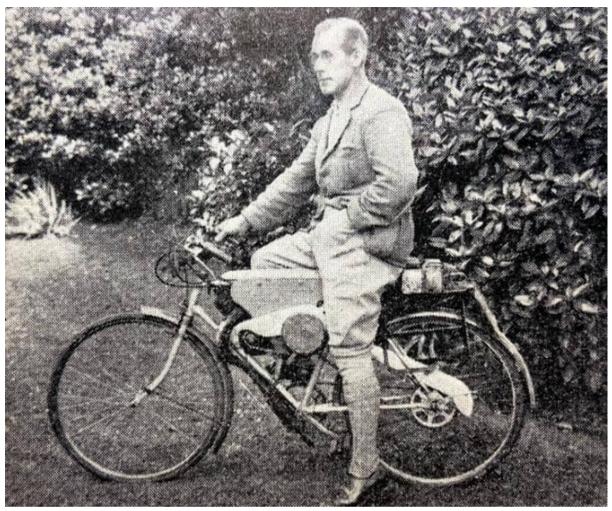
over-enthusiastic spectator threw a glass at him to show his pleasure! With Mellors out, Fleischmann and Wünsche annexed second and third places for Germany. THE 250cc RACE. Ten men had entered for the smallest class; of these two failed to start, one being Thomas (DKW), who had failed to qualify. With Thomas missing, the race became really open and it turned out to be a real dog-fight. G McAdam (Excelsior) took the lead from C Tattersall (CTS) on the first lap, with A Glendinning (Rudge) in third position. Tattersall was not content with that, however, and on the second lap he passed McAdam and stuck grimly to the lead until half-distance. After the pit stops McAdam took the lead for one lap with McCredie second. Then on the seventh lap LG Martin jumped from fifth to second place, and in another 20 miles had established his Excelsior in the lead. McCredie dropped to fifth place. Afterwards, no one could catch Martin, and he finished the race at an average of 76.07mph. G McAdam (Excelsior) retained second place, and Tattersall took third position for the second year in succession. The enthusiasm for the winners at the end was more spontaneous than that at any other Grand Prix this year. The legs, arms and bodies of the victors were pulled and pushed as people tried to take pictures or get a smile from them. Stanley Woods made a neat speech and, after giving his wreath of victory to the crowd, he and Serafini and Martin were carried shoulder-high.

"LAST SATURDAY THE ULSTER Grand Prix regained the honour of being the fastest important European road race, when Serafini (Gilera) averaged the amazing speed of 97.85mph over the 246 miles. It is significant that this feat was accomplished by an Italian supercharged four-cylinder machine on its first appearance on a British road course. It was, however, a British supercharged multi that achieved the distinction of being the first machine to lap the famous Clady circuit at 100mph. This machine, a four-cylinder AJS ridden by that fine Irish rider, Walter Rusk, was actually leading the 500cc class when a comparatively trivial mishap compelled its retirement. In the 350cc class Stanley Woods staved off a strong German challenge to win at record speed, and EA Mellors, on another Velocette, made a record lap at 93.54mph. Finally, the 250cc race provided a thrilling tussle, with LG Martin (Excelsior) the eventual winner. Thus from every point of view the 'Ulster' was a fine sporting event, and the enthusiasm of the crowd was tremendous. It is hard to believe that at one time there was a possibility of this year's race being abandoned."

"IT WAS GRAND to see a British 'blown four' heading the the foreigners in the Ulster Grand Prix, if only temporarily; and equally grand to see Ulster's 'blond a bombshell', Walter Rusk, displaying all his old pep. Hard luck that such a trivial thing as a broken fork link should put him out. Let's hope that the Triumph and Velocette twins back up the AJS in 1940."—Ixion.

"I COULD NOT HELP smiling at that picture of R Mead's racing Norton we published in our description of the Ulster Grand Prix—the photograph showing the rev counter mounted in the middle of the saddle. Can you think of anything that better indicates the almost entire uselessness of a normal saddle on a road-racing machine? On 99 miles out of every 100—with some 'aces' 100 out of 100—riders are not on the saddle at all, but riding on the mudguard pad or on the rear part of a combined saddle and pad. Maybe the racing position will have its effect upon I design. I can never quite understand why we cleave to enlarged types of pedal-cycle saddle, except that the motor cycle developed from the bicycle, which is hardly a good reason. There are, of course, signs of a change in the advent of the combined saddle and pillion seat. We shall see! By the way, do you realise that the riding positions of standard motor cycles were as a whole much better in the era when road-racing men rode in, on or around their saddles than they are to-day? If you will cast your mind back or examine elderly models in the showrooms of second-hand dealers you will, I think, agree that this is a fact."

"A FEW WEEKS AGO I took the opportunity of borrowing a reader's 250cc sidecar outfit. The reasons were threefold: First, the reader had written to me on a few points regarding the outfit; secondly; the 250cc solo is about the most reasonably priced job on the market; and thirdly, I was informed by telephone that the performance was surprisingly good. After trying the outfit I am prepared to say the performance is astonishingly good. The combined weight of the passenger and myself was about 22 stone, yet we could cruise comfortably at 37-40mph over give-and-take roads without overdriving. And, provided that the four-speed gear box was put to good use, the acceleration was commendably snappy. The maximum speed appeared to be about 50mph and petrol consumption 75mpg. Some idea of the hill-climbing capabilities of the outfit can be gained by the fact that we 'made' the 1 in 5½ Pebblecombe Hill, Surrey, at just under 25mph in second gear. Frankly, I think this outfit is a little out of the ordinary, because, although the model is four years old and has covered over 25,000 miles without a rebore, it has been well looked after by the owner. Further, the sidecar is one of the lightest obtainable (the complete outfit weighs 406lb), and the gearing is just right for normal sidecar work."



Home-made autocycle: This motorised bicycle is the work of a reader, Mr GW Hill, of Pannal, near Harrogate, who converted his pedal cycle at a total cost of under £2. The engine is an old 98cc Villiers and the gear box a two-speed Albion. The clutch cover was made of parts of an electric kettle and a saucepan and the engine cover consists of three sheets of plywood bolted to a normal cycle carrier, which clips over the top frame tube. An old oil tin serves as a fuel tank. A speed of 30mph is claimed, and the machine is said to climb 1 in 6 gradients without pedal assistance."

"I WONDER HOW MANY clubmen remember the Carshalton Club's original pillion trial? The first half of the course was through London, the idea being to show that pillion riding was perfectly safe and that motor cyclists had good road manners. The trial was run with the approval of the police, and the club had observers who were on the look-out for bad riding. What made me think of this trial was the news that a similar event has been carried out in Sydney (Australia) by members of the Ariel Club. In co-operation with the traffic department of the Sydney Police, the club mapped out a ten-mile course through the city, and observers were stationed around it. The behaviour of the members who covered the course was observed, and, later, offenders were 'charged' at the Courtesy Court, which was organised by the club. Those who were convicted were fined sums

ranging from 2d to 6d, the proceeds being pooled to provide awards for the members who had kept their 'clean sheets'."

"RWB DAVIES, who is an organiser of educational tours, has written saying that he would be pleased to assist clubs in getting out interesting tours both at home and abroad. For example, he could give a great deal of help to a provincial club making a tour of London, while he also claims to know the Rhine, Paris, Brussels, and Holland very well. If any clubs consider they might want help in organising a future tour, I suggest they jot down Mr Davies' address, which is, Avoca, Winkworth Road, Banstead, Surrey."

## DONINGTON GRAND PRIX

"IT WAS UNFORTUNATE for the Derby Club that an International crisis should coincide with its most important meeting of the year at Donington, the International Grand Prix. Rather naturally the crowd was poor, and only at the really exciting parts of the 31/8-mile circuit were there any large numbers of people. The practising, too, had been somewhat marred by the uncertainty of the situation. ER Thomas, who was down to ride a 250cc DKW, was one of the centres of discussion during the practising period, for no one could decide whether the Auto. Union mechanic who was looking after the machine ought to return to Germany or stay. The mechanic was apparently quite unconcerned, and simply got on with the job of rebuilding the DKW engine which had seized and thrown Thomas on Friday. Steve Lancefield was busy nursing his 500cc Norton, which AJ Wellsted was to ride. Lancefield had made a new frame for the machine and was convinced that the model was the lightest 500 ever raced at Donington. On Saturday morning, Francis Beart was looking glum, for his rider, J Lockett, had been detained in London on National Service. However, Lockett hoped to arrive in time to compete. In the official Norton, Velocette and AJS camps there was the usual pre-race activity, but no undue worries. When Saturday's practising was nearly over, Ted Mellors discovered a leak in his petrol tank—the result of his crash in the 'Ulster'. The tank was soon changed and life in the Velocette camp returned to normal. Daniell, on one of the works 350cc Nortons, beat the 350cc lap record at 73.36mph, and Frith on a 500 equalled his own record of 76.43mph. In the passenger class, FM Muhlemann, the Swiss sidecar driver, and his attractive lady passenger, were a centre of interest, and the regular Donington sidecar and three-wheeler men were also there in force. Practising on Saturday morning had been done on a track slippery with dew, but as the morning progressed the sun came out to dry the road, and by two o'clock, when the 250s came to the line for the first race, conditions were almost ideal. At the fall of the flag Thomas, with the DKW, jumped



"Low-angle shot of the start of the 500cc race. The foremost riders are: AJ Mazengarb (BSA), No 47; HL Daniell (Norton), No 45; J Lockett (Norton), No 42; and PC Goodman (Velocette), No 41."

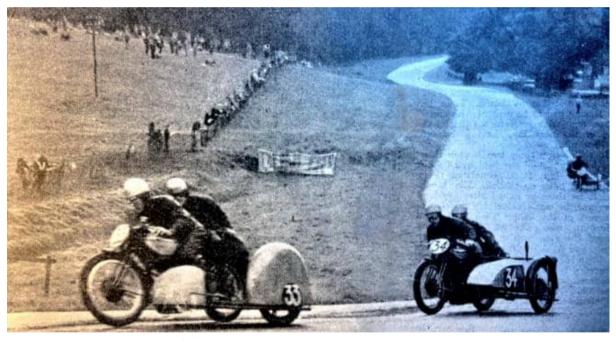
straight into the lead. Behind him were RW Thompson (248cc OK Supreme), M Cann (248cc Guzzi), and H Hartley (249cc Rudge). LJ Archer (248cc New Imperial), who had been announced as a non-starter, was among the pack, and at the end of the first lap he was second, not far behind Thomas. Archer was obviously trying hard, but his gallant old New Imperial had not the speed of the DKW, and Thomas, in spite of shutting off early at some of the bends, was able to maintain his lead and later to increase it. Behind these two there was a great scrap for third place. For the first few laps H Hartley (249cc Rudge) held the position, but M Cann (Guzzi) and JA Worswick (Excelsior), in the course of a terrific duel, gradually caught up and overtook the Rudge man. For several laps these three raced round together. Then Cann managed to draw away from Worswick, who in turn dropped Hartley, whose engine appeared to have lost power. Meanwhile, Thomas had increased his lead on Archer, and when he received the chequered flag the New Imperial was 21sec behind the DKW. The 350 c.c. race was notable for a magnificent scrap between HL Daniell and FL Frith, on works Nortons, which lasted from the first to the 10th and last lap. Every one of the 15 competitors came to the line, and Frith made a superb start, followed by PC Goodman (Velocette), S'Ginger' Wood (OK Supreme), J Lockett (Norton) and AJ Wellsted (Velocette). LJ Archer (Velocette) was last away, and never really got into his stride, for he did not come round on the second lap. Stanley Woods (Velocette) was also early in trouble, retiring at Melbourne Corner on the second lap when a valve touched the piston. Daniell, who had made a poorish start, lost no time in getting after the leaders, and at the end of two laps he was second to Frith. Goodman (Velocette) was third. Daniell and Frith then proceeded to have one of the finest races that has ever been seen at Donington. Round they went for lap after lap with only yards separating them. Daniell took the lead on the third lap, and held it until the sixth, when Frith, by superb riding, managed to slip in front. Daniell overtook again on the eighth lap, but it was Frith's white helmet that could be seen leading when the two men came into sight down the straight to Melbourne Corner. From then on Daniell had to be content with second place, and Frith received the flag at the end of the next lap, having averaged 71.79mph. In their scrap these two Norton riders had left the rest of the field well behind. For a few laps PC Goodman (Velocette) had hung on to their

tails; but he had to let them go ahead after five laps. However, he was comfortably in front of the rest of the field. Then J Lockett (Norton), who was in fourth place, passed the stands with his engine misfiring, and AJ Wellsted (Velocette) and M



"The cornering of a crack: A thrilling glimpse of HL Daniell (Norton) at Melbourne Corner." (Right) "The winner smiles: FL Frith looks pleased after his victory in the 500cc 20-lap race."

Cann (Norton), who were close behind, proceeded to overtake as Lockett slowed. Goodman was never challenged for third place, but Wellsted was able to hold off Cann, and finished fourth. Six drivers came to the line for the sidecar race, which was run over five laps, but this number was quickly reduced to three. FM Muhlemann (FN sc), the Swiss driver, made a good start, but his lead was short-lived, for the engine cut out before he had reached Redgate Corner. Muhlemann changed a plug and got away, but he failed to complete the first lap. At the end of the first lap the three Norton sidecar drivers, LW Taylor, CF Smith, and AH Horton, came past the start almost abreast. Taylor then managed to scrape a few yards lead and was the first to dive into the wooded section of the course. Both the Morgans were in trouble at the end of this lap; TWJ Bryant coasted in to retire, while C Hale, after changing a plug at the pits, got away as the three sidecars came round to start their third lap. Horton had overtaken Smith on the second lap, and as Horton. and Taylor raced past the start they were neck and neck; but Horton left his braking a shade later than Taylor and with a superhuman effort he wrenched the outfit round Redgate Corner a fraction ahead. Taylor was unable to catch Horton, and at the end of the fifth lap the latter crossed the line with a lead Of three seconds. Several important non-starters were announced for the last race of the day, the 500cc solo event, which was over 20 laps. Stanley Woods was absent with his 350, LJ Archer's 500cc Velocette had not turned up after being despatched from Ireland, and M Cann's Guzzi, which broke an oil-pipe in the Ulster Grand Prix, had not been prepared in time for this race. There was a few minutes' delay at the start in order that the race should coincide with the broadcasting time. But at 4.16 p.m Fred Craner dropped the Union Jack and the 16 men pushed their mounts into life. First into the saddle was J Lockett (Norton), who led PC Goodman and the rest of the field into Redgate Corner. Lockett, making the most of his start, was first down the straight, but he was closely followed by AJ Wellsted (Norton), FL Frith (Norton), and AR Foster (AJS Four). On the next lap Lockett was still holding his lead and had drawn away a little from Wellsted. Frith was third, very close behind Wellsted, and HL Daniell had come out of the pack and was chasing Frith. It was not long before these two were harrying first Wellsted and then Lockett. At the end of three laps Lockett was sandwiched between Frith and Daniell, and on the next lap Daniell was second to Frith. Having successfully disposed of all opposition, Frith and Daniell proceeded to scrap with each other, and Daniell took the lead on the fifth lap, having averaged nearly 74mph. Poor Lockett held a comfortable third place for another lap, and then disappeared, leaving Wellsted in third position, hotly chased by PC Goodman (Velocette). Fifth was Foster on the AJS, and sixth S 'Ginger' Wood (Norton). This was the order at half-distance, ten laps, when Daniell's average was 74.51mph. But at the end of 13 laps the pace began



"Duel for the lead: An exciting scrap between AH Horton (596cc sc) No 33, and LW Taylor, No 34, driving a similar outfit."

to tell, and Frith came through first—alone. Daniell had stopped at Melbourne Corner with gear box trouble. Then 'Ginger' Wood, who had been chasing Foster, came through ahead of the AJS. On the next lap Foster drew into the pits, but after Matt Wright had made an adjustment, apparently to the clutch control, the rider got away again. With Frith on his 15th lap, the order was Frith (Norton), Wellsted (Norton), Goodman (Velocette), 'Ginger' Wood (Norton), JA Worswick (Norton) and LW Parsons (Norton).

Frith, however, had a considerable lead over Wellsted, and Goodman did not seem to be able to reduce the distance between himself and the second man. Frith's lead was such that, barring trouble, the race was his. and for the next five laps he rode round without taking unnecessary risks. He eventually finished an easy winner from Wellsted, who was in turn well ahead of Goodman. Wellsted (Norton), Goodman (Velocette) and 'Ginger' Wood (Norton) were the only riders to complete the full distance, for Frith had lapped the rest of the field. RESULTS. 250cc Race—10 laps (31½ miles): 1, ER Thomas (DKW), 65.90mph; 2, LJ Archer (New Imperial); 3, M Cann (Guzzi). 350cc Race—10 laps (31½ miles): 1, FL Frith (Norton), 71.79mph; 2, HL Daniell (Norton); 3, PC Goodman (Velocette). 1,100cc Passenger Machine Race—5 laps (15½ miles): 1, AH Horton (596cc Norton sc); 2, LW Taylor (596cc Norton sc); 3, CF Smith (596cc Norton sc). 500cc. Race—20 laps (62½ miles): 1, FL Frith (Norton), 73.69mph; 2, AJ Wellsted (Norton); 3, PC Goodman (Velocette); 4, S 'Ginger' Wood (Norton)."

"WHEN PREPARING MY OUTFIT for a carnival, the idea came to me that a motor cycle ambulance would be something useful. I enclose a photograph of the result of my efforts at putting the idea into practice. The favourable comment on my machine with ambulance fitted, including the interest and approval of the Inspector of Police here, has been most refreshing. I intend using this ambulance as a 'Roving First-Aid Patrol' while performing my duties as police despatch rider in the event of an emergency. FA Spall, Witham, Essex."



"A neat motor cycle ambulance made by Mr FA Spall."

"NO DOUBT MANY motor cyclists read with indignation in the daily Press the alleged remarks of Mr David Rees, coroner for East Glamorgan, during an enquiry into the cause of a road accident recently. He was reported as having said: 'Not only are motor cyclists a danger to themselves, but to other road users.' Such an observation from a responsible official was so unbelievable that Major HR Watling, the director of the Manufacturers' Union, immediately wrote asking if the coroner had been correctly reported, and, if so, whether he would produce evidence to support his views. The reply was a curt refusal to discuss the matter. Major Watling therefore wrote again to Mr Rees, informing him that he considered it his duty to forward copies of the correspondence to the Lord Chancellor and to the Press. True to his word, Major Watling has now written to the Lord Chancellor, referring to the case in question, and asking him to request coroners 'not to generalise in a manner which constitutes an intolerable insult to the vast majority of law-abiding users of the road'."

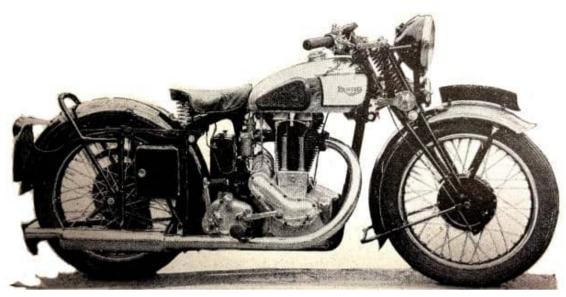


"Handsome is as handsome wins: They held a 'smartest-looking couples' competition at a recent gymkhana organised be the Hackney Wick Speedway MC. Here are the winners, and don't you think they deserve the prizes? On the extreme left is Mrs Dick Case, and on the extreme right Mr Fred Evans, who presented the awards."

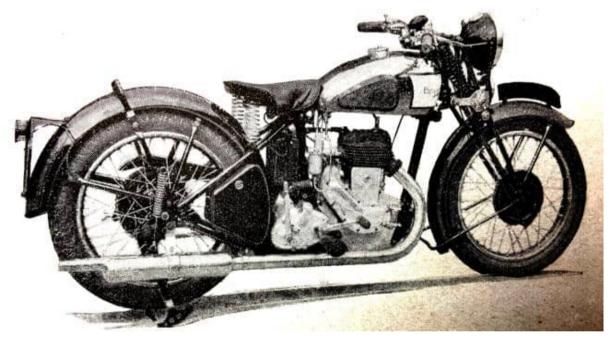
THE BRITISH MOTOR CYCLE ASSOCIATION yearbook was packed with info on current models and future events. More intriguing was the advert it carried for Challoner's Famous Formula HTN Tablets. In a testimonial 'AJ of Wilts' wrote: "Since I started your treatment I have gained three inches in height." And the company promised: "If one box is insufficient we guarantee to supply another FREE!"

THE FIRST REGULAR television transmissions put pressure on manufacturers to stop sparky passing vehicles interfering with reception. That's why plug caps are more properly known as suppressor caps.

"NEXT YEAR THE RANGE of Panther models will be wider and more varied than ever before. Features of design entirely new to this make will also be introduced. Some of the machines will have normal duplex loop frames and vertical engines, the latter for the first time in Phelon and Moore history; one of the machines will have a 598cc side-valve engine. Then there is the new leaf-spring frame, designed by Mr. Granville Bradshaw, which is applicable to all the models except the 250 and 350cc types. Finally, there is a 500cc vertical-twin model. This machine is not yet available for description and illustration, but work and tests are proceeding and its completion is hoped for in the near future. The two entirely new Panthers are a 498cc vertical-engined overhead valve model and a 598cc vertical side-valve machine."



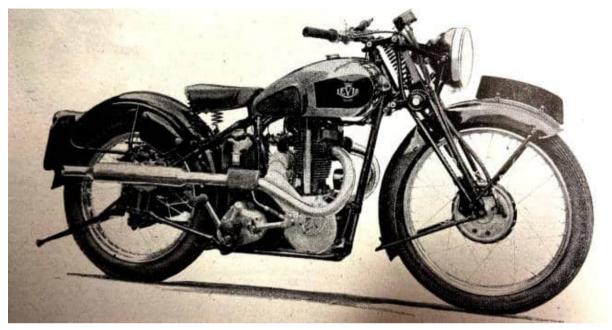
"The new model 'S90', with vertical 498cc ohv engine and leaf-spring frame,"



"A dual-purpose mount—the 600cc side-valve Panther."

"THE RANGE OF LEVIS motor cycles for 1940 shows little change. All the models are continued and only minor modifications are to be observed. There will be six machines in all: a two-stroke, four ohv models and a side-valve. In addition there is, of course, the spring frame, which was introduced some time ago, and this is retained unaltered. As before, it will be available on two models, of 346 and 498cc capacity. The side-valve is the newest model in the range...Fundamentally, it is the same as before, but a larger tank gives a much better appearance, besides being of greater utility. Other points of interest are a new rear number plate and a tail lamp of the latest Miller design, and a new bulbous front in the head lamp. These two latter features are common throughout the range. The new tail lamp is a definite improvement, for it facilitates bulb removal, which is now done from the lamp front instead of from the point at which the cable

enters. The only other modification concerns the 346cc ohv Model 'A', which has a new cam formation designed to ensure a greater degree of silence in the valve gear, together with a smoother performance."



"The well-tried Levis rear suspension is available on both 346 and 498cc ohv models. The model illustrated is the 500."

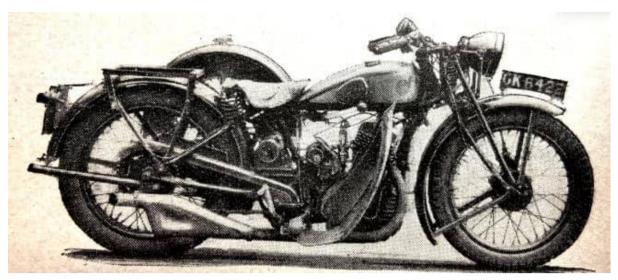
"ITALIAN DESIGNERS WERE among the first to realise the potentialities of multi-cylinder engines for very high speed work, and, in view of the success of an Italian multi in the Ulster Grand Prix, particular interest attaches to the latest Bianchi racing model. In basic layout the engine is straight-forward; it is a 500cc four-in-line, mounted across, the frame, and has twin overhead camshafts and poppet valves. The vertical camshaft drive, the cam-shafts and the valve-operating gear are totally enclosed and lubricated, but the coil-spring operated valves, immediately below the camshaft boxes, are exposed. Mounted behind the engine is the unit four-speed gear box, and above the gear box, the magneto; at the rear of the magneto is a supercharger, which forces mixture to the cylinders by way of a ribbed manifold. The carburettor is fitted slightly above and to the rear of the supercharger, and has a down-draught in-take. The massive tubular frame houses the unit very neatly; all the components of the engine, gear box, magneto; supercharger and carburettor are within the rectangle formed by the front down tube, the saddle tube, the triple top tubes and the duplex cradle. The rear springing is of the orthodox plunger type. Final drive is by chain on the right-hand side of the machine. Pressed-steel forks are not usually found on a racing machine; those fitted to the Bianchi are of very clean design, with a single compression spring and hand-operated friction dampers on both sides. The hubs and wheel rims are made of light alloy and 3.25in section tyres are fitted to both front and rear wheels. Although a straight fourcylinder engine does not lend itself particularly well to being accommodated in a motor cycle frame, the Bianchi unit is very compact and does not look unduly wide when the

machine is viewed from the front; indeed, from all angles the machine has a very sleek appearance. Although no figures relating to performance are yet available, there is little doubt that the Bianchi will have to be watched with respectful interest next season."

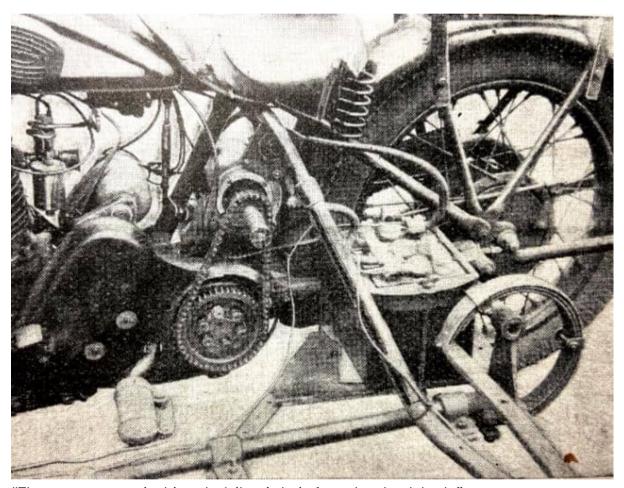


"Viewed from the front it is seen that the Bianchi engine does not overhang to any great extent." (Right) "The 500cc four-cylinder-in-line supercharged Bianchi. This photograph gives a good impression of the neat lines of the machine." Claimed power output was 80hp at 7,500rpm.

"AN INGENIOUS METHOD of attaching an electric starter to his 1931 NSD Triumph and sidecar has been devised by Mr RH Athersych, of 39, Wallace Road, Coventry. His first experiments were carried out with a 12-volt dyna-motor from an old Morris-Cowley, and, though the arrangement worked well, it was rather large and untidy, since both dynamotor and battery had to be carried on the sidecar chassis between the machine and the sidecar body. Later Mr Athersych obtained a Lucas 6-volt starter-motor off a 1924 9hp Rover car, and it was found that this could be accommodated between the seat tube and rear mudguard. Accordingly a steel bracket was made to bolt on to the four gear-box holding bolts, and the motor is fixed to this bracket with the aid of a wooden packing block. With this lay-out there is ample room for a 6-volt Morris '8' battery (also Lucas) to be accommodated on the sidecar chassis. The 'silent' chain drive from the old dynamotor is retained, and the lower sprocket mounted on a clutch back-plate forging which, in turn, is riveted to the outer clutch plate, the latter having been bored out to permit access to the special clutch spring nuts. A test showed that the motor had ample power to start the 549cc side-valve engine. Thereafter the startingmotor is driven on open circuit, but, according to the owner, any slight loss of performance from this source is not perceptible on the road. The original arrangement was tried out almost a year ago, and since then Mr Athersych has used his outfit daily for getting to work, for week-end runs and for holidays."



"The arrangement is neat and unobtrusive."



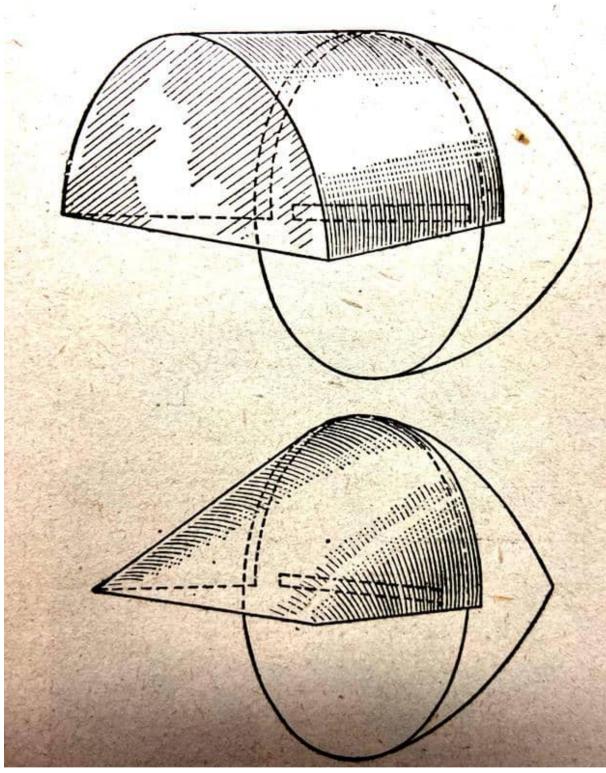
"The starter-motor is driven by 'silent' chain from the clutch body."

"IN THE LAST WAR *The Motor Cycle* proved a friend and companion to thousands of motor cyclists serving in various branches of the Forces. That is our mission in the present war. We shall carry on. Week by week our endeavour will be to provide the link between members of the great motor cycle brotherhood, no matter where they are. The Motor Cycle has proved the forum for the half-million motor cyclists; it will continue as such. Should the number of our pages be reduced, motor cyclists will still be able to

find in them the news of the great game and, perhaps even more important, be able to get away from war and thoughts of war. Our aim, Thursday by Thursday, will be to be entertaining, refreshing and helpful—a cheerful friend to all."

"NO OBSERVER, EVEN the most casual, can fail to be impressed by the stoical calm of this nation of ours in time of stress and the way all sections of it are pulling together. All have a part to play in what must prove to be a terrific struggle, and all are deter-mined to play it in whatever sphere their duty lies. Motor cyclists require no lead. Tens of thousands of them are already in various sections of the forces or undertaking work of national importance. They with their technical knowledge and their skill gained from motor cycling constitute one of the most valuable sections of the community. We know—all our many contacts prove it—that British motor cyclists will exert their utmost efforts in the National cause."

"MOTOR CYCLISTS MUST now comply with the emergency lighting regulations. Head lamps may be used provided: (a) that a hood is fitted to ensure that no light is visible above eye level at a greater distance than 25 feet from the lamp; (b) that the lamp is so masked that light is emitted only through a horizontal slit not exceeding % in in width, of which the upper edge coincides approximately with the centre line of the front glass of the lamp; (c) that the whole of the reflector is blackened. The front glasses of all lamps must be obscured with at least two thicknesses of paper or paint, ground glass, or other uncoloured material, so that the obscuring effect produced is not less than that of two thicknesses of ordinary paper of newspaper thickness. The paper, paint or other material must cover the whole of the portion of the front glass through which light can pass and must not be wetted, oiled, varnished or treated in any other way to increase its transparency."



"Diagrams of officially approved head lamp hoods."

"OIL-TINS AND oil-drums were almost at a premium last week-end. Is there any better material from which to make an ARP head-lamp disc and cowl than the tin-plate from a one-gallon oil tin? The snag I found, in common no doubt with tens of thousands, was that cowls of the type depicted in the police instructions take quite a lot of making. The one I have gone in for is the 'half-cylinder', and the front semi-circle is provided with

serrations (rather after the style of the Kaze oil-can and the Norton tank), which have been duly soldered on to the main cowl portion. The cowl is fixed by the head-lamp bracket screws and a little screw on top of the lamp. Any thoughts I had to the effect that I was a passable amateur mechanic have rather disappeared after last week-end."

"THE FIRST REACTION of us all to riding with reduced lighting in a blacked-out England was sheer loathing, even in lovely weather, with no rain, grand visibility and a bit of a moon. Our disgust was partly due to the novelty of the conditions, and partly to the enforced cut in our normal speed. Growing experience is fast reconciling us to the new conditions. On the plus side, there is no dazzle of any kind anywhere; the roads are, comparatively speaking, deserted; cyclists with their red rear lights can be picked up with absolute certainty before you get near them; the central white lines on all except the pettiest of roads are easily picked up. and will be an enormous asset when fog comes. The main snag is the reduction of speed, which, even in good conditions, will probably amount to 50%, but is not really half so important as it sounds. Curiously enough, some men are slowed down much more than others. Junior actually came down from town to our seaside bungalow by night in only half an hour over his usual time for 70 miles, whereas an elderly neighbour who drives a car required twice his usual time allowance for the same trip on the same night. The explanation probably is that Junior has better eyes and stronger nerves than the older man."—Ixion.

"AIR RAID PRECAUTION cowls for head lamps, made of metal, are now being sold by Pride and Clarke, 158, Stockwell Road, London, SW9, priced at 3s 6d to 4s 6d each."

"AS WILL READILY be appreciated, in the present circumstances it has. been found necessary to cancel the Manx Grand Prix. The decision was taken by the Committee of the Manx MCC last Friday evening and all competitors were informed by telegram."

"THERE ARE VACANCIES for a few motor cycle despatch riders in the 12th Light Anti-Aircraft Regiment (Territorial Army). Service machines are provided. Applications should be made on. Wednesday or Thursday evenings between 7.30pm and 9.30pm, to the 12th Light Anti-Aircraft Regt, 99, Goswell Road, London, EC1."

"DESPATCH RIDERS WHO took part in the last war are invited to serve on a full-time basis as motor-cycle despatch riders (ARP) in London in the event of war. Machines and equipment will be supplied and the pay will be £3 per week. So far as is practicable men would be attached to local headquarters. No doubt there are many who enlisted in the RE Signals, MTASC, Motor Machine Gun Corps, or RAF who are able and willing to offer their services again in the event of an emergency. Full particulars can be obtained from the Editor, of *The Motor Cycle*, or from Mr ER Gilbert, Hastings House, Norfolk Street, Strand, London, WC2."

"THE LONDON FIRE BRIGADE requires 450 active motor cyclists for despatch-rider duties. Applicants must possess their own machines, and in peace time will be paid

1½d per mile when on official duties. In time of war they will receive a salary of £3 per week and will continue to be paid the mileage allowance. There is no age limit for this service, and those wishing to join should report to the headquarters of the London Fire Brigade, Room No 2, Whitgift House, London, SE1."

OWING TO MINISTRY of Transport driving examiners being required for special defence duties, it is anticipated that there will be some delay before new drivers can take their test. As an emergency measure, therefore, County Councils and County Borough Councils (large Burghs in Scotland) have been authorised to issue a special licence, known as a National Service Driving Licence, to holders of provisional licences who have not yet passed the test and to other persons who have not previously held licences of the kind they now require, provided they satisfy the Council that they require the licence for the purpose of driving vehicles on work of national importance, are not disqualified by physical disability or otherwise, and are suitable persons to be granted such licences."

STAMFORD STREET, SE1, to the seashore sands is a farish cry, yet several members of The Motor Cycle editorial staff have been observed during the last three weeks stripped to the waist in the vicinity of Dorset House—and there was lots of sand around, and shovels, but no pails; neither was the object to bask in the sun. Bathing in honest sweat was the order of the day. Sand bags—thousands of them—had to be filled, tied, hauled, passed from hand to hand and placed in position. 'Paton', 'Perseus', 'Cambrian', 'Talmage' and many others had a crack at it."

"AS FROM NEXT SATURDAY, September 16th, petrol is only obtainable by private motorists on presentation of their ration books. Those who have not already obtained their books and wish to continue using their vehicles should make application immediately to the post office or local taxation office from which they normally obtain their Road Fund licences. No application form has to be filled in—the only necessary requirement is production of the registration book. The petrol supplied will be one grade only, 'Pool' motor spirit [rated at about 72 octane], costing, in England and Wales, Is 6d a gallon. Garages and service stations are not allowed to supply this in tins; it must be put into the tank of the vehicle."

## Petrol Rations

Where to Apply for Essential Additional Supplies: Full List of the Names and Addresses of the Divisional Petroleum Officers and the Areas They Cover

THOSE owners of motor cycles to whom additional petrol THOSE owners of motor cycles to whom additional petrol supplies are essential must, as already announced, obtain an application form from the post office or local taxation office from which they seemre their books of coupons. After completion these forms should be sent by post to the appropriate divisional petroleum officer. The following is the list of officers with their divisions and the areas they cover:

- Nonvisian Division.—Captain C. C. Webb, Dean Holme, Claylon Road, Jesmund. Newcastle on Type (Northumberland, Durham and N. Holing
- NORTH EASTERN DIVISION. Major G. T. Wright, Brunswick Sunday Schools, Wesley Street and Hartley Hill, Levis (Norkshire, Icea N.
- 4 Eastran Drvision.-Mr. Gestion Pryor, Douglasbank, Lathern Read, Cambridge (Counties of Norlolk, Suffolk, Cambridge, Huwlingdon, Iele of Ely, Redford, Herfs and Essex, less that pair of the Metropolitan Police Area lying within the last two counties)
- HERER AND ESSEX ARMA Mr. J. Lindsay Allen, Congregational Sunday School, New London Boad, corner of Friar Place, Chelmeford (Heres and Essex portion of the Restern Division).

  LONDON DIVISION Mr. F. R. M. Beatley, Broadway Congregational Hall, Brook Green Road, Hampersentth (London and Middleasz and those property of Longon Heres, Surley, and Kent Flying within the Meiropolitan Policy of Longon and Congregation of Congrega
- THERS Division. Mr. H. R. Hermon-Hodge, St. Lawrence's Hall, black Street, Reading (Counties of Surrey-less that past of the Matro-ollah Police Area Jying within that county-Haufs-plus the area

Poole Borough, Wimborne Minster Urban District and Wimborne and Cranborne Rural District—Isle of Wighs, Berks, Oxford, and Bucksl.

- 7.—SOUTH-WESTERN DIVISION.—Mr. F. J. Salmon, Central Hall, Red Cross Street (off Old Market Street), Bristol. 8 (Counties of Gloucester, Wills, Dorset—excluding the areas of Poole Borough, Wimborne Minster Urban District and Wimborne and Cranborne Burst District—Somerset, Deven, Cornwall, and Scilly Edes).
- WeLSH DIVISION.-Mr. W. Morgan, Dormie Calé, Andrews Arcade, Queen Street, Cardiff (Counties of Cardigan, Radner, Brecknock, Munmouth, Glamorgan, Carmarthen, and Pembroke).
- 8A.—N. Wales Area.—Mr. B. A. Warner, Queen's Tower, Carraryon Carlie, Caernaryon (Counties of Anglesoy, Caernaryon, Merioneth, Montgomery, Denbigh, and Flint).
- Milliann Brvisjon Colonel W. E. H. Brailburn, St. Martin's Street, Piva Ways, Edghaston, Birmingham, 15 (Counties of Stafford, Warwick, Wor-caster, Hereford, and Salop).
- 10.—Nonth-Western Devision.—Mr. R. H. Whitehorn, 76, Newton St. Marchester, 1 (Countles of Cumberfand, Westenorland, Linco Checker, Blus the area of the Borough of Glossop and New Mills Whaley Bridge Urban. District Councils, Berough of Buxton, Chapele Bridge Rural District Councils.
- Scottand Division. Mr. R. B. Crabb. 15. George Street, Edinburgh Mallothian, East Lothian, West Lothian, Berwick, Roxburgh. Peebles, Schirk, Dumbries. File, Kinrons, Perlh, and Chekmannan).
   N. Scottand Arka. Mr. J. Mackensie. 10. Constitution Road, Dunder (Counties of Angus (Foriar), Aberlieen, Banif. Kincardine. Moray, Orkney, Shelland. Nairn, Inverness, Ross and Cromurty, Sutherland, and Castinness.
- IIB. S. W. Scotlann Agra. Mr. W. Armour, 49, Quren's Street, Glasgow Counties of Resirew, Lanark, Argyll, Ayr. Bute, Dumbarton, Stirling, Kirkenshright, and Wigtown).
- Solven-Kastrice Division —Mr. A. Lyons, Bank House, I. London Road, Tunbridge Wolls (Kanl and Susser, less that part of the Mctropolitan Police Arm lying within the County of Kent).

CUT HERE

"THAT A CAR OF 1,172cc should be allowed six gallons a month under the petrol rationing scheme which comes into force this week-end and a three-wheeler with an engine of exactly the same capacity only two gallons is manifestly unfair. Equally, it is wrong that an 80cc autocycle should, for rationing purposes, be classed with a 1,000cc sidecar outfit. Why the Mines Department decided to allot two gallons of fuel a month to motor cycles irrespective of their size and type is difficult to understand in view of the obvious care taken in grading cars. Undoubtedly there is not the slightest desire to be unfair, and we feel sure that once the position is realised action will be taken. Immediately it was known that for the purpose of fuel rations all motor cycles were being classed together, Major Watling, of the Manufacturers' Union, discussed the matter with the Press and has now followed this up by representations in conjunction with the various motoring organisations. Perhaps even by the time this appears in print an equitable scheme will be announced."

"ROUND AND ROUND THEY GO. Roundabout traffic operation is to be instituted at the junction of Watford Way and Great North Way, and at Miles Street, Lambeth."

"SAFER STARTS WERE a notable feature of the racing at West Ham Speedway last week, writes 'Talmage', when ribbed rear tyres were used by all the riders throughout the meeting, which was in the nature of a tyre trial. There was no snaking at the starts and no tendency to turn cart-wheels on the line. When machines were turning the bends the streams of cinders thrown up were more restricted as regards the amount of 'spread' and presented a less solid barrage than is the case with studded-pattern tyres."

"TO MOTOR CYCLISTS there can be few things more pleasing than the way the motor cycle and the motor cyclist have come into their own in the present time of stress. Thousands of riders and machines have been pressed into use. Apart from the services with their huge numbers of motor cyclists, there have been almost continuous calls for motor cyclists for work of national importance—calls that invariably have met with an instant response. There is a fresh (and refreshing) outlook towards motor cycling—a new realisation of the immense value of motor cyclists to the nation. Even in the advance columns of our enemy every mechanised section has its motor cyclists, as has been revealed in numerous photographs."

"COD-LIVER OIL, fresh fruit and vegetables are all good for keeping one's night vision up to scratch, according to dieticians."

"A STOUT METAL SHIELD for fitting to the roof of a saloon car, to protect the occupants from falling debris, shrapnel, etc, is now being sold."

"MOTORISTS AND MOTOR cyclists in towns are asked to drive as quietly as possible so as not to disturb the day-time sleep of Civil Defence workers."

"MR LA BADDELEY, pioneer motor cyclist, chairman of the Motor Cycling Club, like many another old-timer, is back on a motor cycle again—and loving it."

"MOTOR CYCLISTS WHO use their machines for ARP work and want extra supplies of petrol should send their claims to the appropriate. Divisional Petroleum Officer, and not to the local ARP authorities."

"THE RAC ISSUES the reminder that it is illegal to dilute petrol with paraffin to eke out one's fuel ration."

"THE UNVEILING OF a plaque at Courthill smithy, Dumfries, commemorating the 100th anniversary of the invention of the bicycle, has been indefinitely postponed. The first bicycle to be propelled by pedals was made by Kirkpatrick Macmillan, a Scottish blacksmith, in 1839."

"NOEL POPE, BROOKLANDS lap-record holder, is on active service with, at the time of going to press, one pip on his tunic."

"MOTORISTS ARE WARNED by the Mines Department that they must not store extra supplies of petrol."

"IT WAS RECOMMENDED at a Leeds inquest that 'L'" drivers be banned from driving in the black-out."

"A WEST COUNTRY cyclist summoned for riding without a front light was said to have had three glow-worms in his lamp!"

"THE MANUFACTURERS' UNION has decided to cancel the Motor Cycle Show, due to have been held in November."

"THE SECRETARY OF the Cyclists' Touring Club, Mr GHJ Stancer, claims that rear lights for cycling will only be enforced 'for the duration'."

"IMPORTANT NOTICE: COPIES of this journal must be ordered in advance. Owing to the difficulty of distributing journals in wartime, it is imperative for readers to place definite orders for *The Motor Cycle* to ensure a regular copy. In the future, newsagents will only order from the publishers those copies for which they have received a definite demand. To avoid disappointment, place an order with your newsagent, or subscribe direct without delay."

<b>-</b> N	<b>1ERGENCY ORDER FORM</b>
	Order your copy of THE MOTOR CYCLE in advance. Please place a regular order for THE MOTOR CYCLE with your newsagent if you wish to be certain of securing a copy each week. In future it is unlikely that newsagents will have copies available unless they are definitely ordered in advance.
177	serve/deliver THE MOTOR CYCLE every week until further notice.
DDKE	SS
DDRE	ss
	SCRIPTION RATES  Comment—the motor cyclist's own newspaper, the forum for the interchange of views and experiences among the many thousands of motor cyclist's in the Services and on other work of national importance. The Motor Cycle, refreshing as ever, forms the means of keeping in touch and maintaining that happy camaraderie which is such a feature of the motor cycle game.  SIGN & HAND TO YOUR NEWSAGENT TO-D  PORSET London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Porset London Formation  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  Photo  SIGN & HAND TO YOUR NEWSAGENT TO-D  Photo  S

"IMPORTS OF MOTOR cars and other luxury goods into this country are now prohibited."

"A NUMBER OF WOMEN are learning to drive their husband's or fiancé's motor cycle, so as to be ready for any emergency."

"LONDON'S AUXILIARY Fire Service DRs are making a brave show in the Metropolis. On the whole their riding is excellent."

"DESERTED ROADS, 'HOT' motors, and official despatches to be delivered at speed—this was the joyous experience of some of the DRs on national service last Wednesday week."

"THE BRITISH MOTOR Cycle Association is carrying on. An official statement reads: 'Already many of the staff have taken up National Service, but those of us who are left will spare no effort to help members in every way."

"CAN YOU IMPRESS upon the authorities the desirability of continuing the black and white patchwork effect at street corners even when the 'unpleasantness' is over? Our street lighting at normal times is often very poor, and these check-painted kerbs provide just the safeguard that is needed. They show where the corners are and reveal the path one should take. All who have had the misfortune to run into an undefined kerb would bless them. Also I have found that they help one to pick out pedestrians. Central dotted lines, too, are valuable as a guide in foggy weather as well as for revealing one's half of the road. These also should he continued provided that the paint is absolutely non-skid. **T Thurston**, Birmingham."

"BECAUSE THE POLICE are too busy, hundreds of summonses against motorists have been cancelled."

"ALTHOUGH CYCLISTS HAVE been ordered to fit rear lights after dark, these lights are unobtainable at the majority of cycle agents—they are sold out."

"THERE ARE STILL some thoughtless people who are parking their vehicles without lights after dark, or else pointing the wrong way."

"THE POLICE NOTICE states that matt white paint must be applied to bumpers and to the edges of running boards or to the equivalent positions on other types of vehicle. (On a motor cycle the matt white paint can be applied to the sides or valances of the front and rear mudguards and to the front of the front guard and the rear of the rear one.) Stop lights are permissible provided that the aperture is restricted to a maximum of one square inch and the light is partially obscured as in the case of side, sidecar and rear lamps. Various types of matt white distemper which, it is stated, will not wash off in the ordinary way, yet can be removed with soda and water, are obtainable from oil and colour stores, etc."

"WE ARE RECEIVING numerous enquiries relating to the alterations necessary to our machines to render them suitable or use on 'Pool' petrol, and we shall be greatly obliged if you will publish the following: No alteration is necessary to the 250cc Rapid, the Special or the Sports Special, but the compression ratios of both Ulster and 350cc Sports models are too high for the class of fuel which will be obtainable under existing conditions. Our recommendation in the case of the Ulster is to fit one extra compression plate .040in thickness, together with one extra paper washer underneath the cylinder barrel, and to fit a No 150 main jet. In the case of the 250cc Sports the compression plate should be .080in thickness, and this also will necessitate the use of one extra paper washer; in this case the main-jet size should be reduced to No 120. **Rudge-Whitworth Service Dept,** Hayes, Middx."



"A GAS MASK WILL fit very nicely into many commercial tins (a circular one with a press lid is best). This can be enamelled black and straps riveted to the tin. The container can then be carried over the shoulder, whether on saddle or afoot, in complete safety and comfort."

"LUMINOUS BUTTON-HOLES promise to be-come popular among pedestrians."

"MOTORISTS ARE NOW being fined for having too bright lights at night."

"REDUCED BUS SERVICES all over the country have resulted in a big increase of the 'ride-to-work brigade'.

"THE NORMAL TYPE of car fire-extinguisher should not be used for attempting to extinguish a magnesium incendiary bomb. An explosion would probably result."

"WHITE-LINE PAINTING is busily going on all over the country. Even householders are assisting by splashing the kerb out-side the house with whitewash."



"Lined up for action; a smart section of the motor-cycle-mounted military police."

"THE ORDER OF THE ROAD organisation is to be suspended during the war, but will be recontinued afterwards. Present members will be eligible for renewed membership without further subscription for the first year after the war."

"BARIMAR'S, THE WELDING EXPERTS, are trying so far as possible to work on a priority of work basis. Firms and individuals sending parts for welding are therefore asked to state whether the work is direct or indirect Government work, or for ARP, agriculture, foodstuffs, or other of the public services."

"AS PREVIOUSLY ANNOUNCED, RH Collier and Co, Collier's Corner, South Yardley, Birmingham, have taken over the whole of the spares for New Imperial machines produced up to September 1st, 1939. Enquiries regarding spares should therefore be sent to the above address. In addition, personnel from the New Imperial works have been engaged to handle service and repairs."

"SEVERAL DESPATCH RIDERS are required for the 2nd North Midland Batt of the Royal Corps of Signals. This unit already incorporates many Northern clubmen and, as expert riders are needed, preference will be given to those with trials and club experience. Application should be made to Major H Bolland, Central Recruiting Office, Derby."

"TIME HAS BEEN rather short for clubs to send in their offers to throw open their headquarters to motor cyclists who by reason of the war may find themselves billeted away from home. I know that the majority of clubs welcome newcomers at all times, but a man out of his own district probably would not know where to find the local club's

headquarters, and in any case he would feel much happier about attending a club night if he had seen in print that he would be welcomed. So far the Birchington Club heads the list of open club rooms. Any motor cyclist is welcome on Wednesday evenings at the Island Cafe and Hotel, Upstreet, on the Canterbury-Margate road. The secretary says that as a number of members are away on service, attendances may not be so large as usual, no that the more who attend the merrier the party."



"Autocycles become necessities: The fleet of autocycles now used by nurses of Queen Charlotte's Hospital have become doubly useful in these times of reduced travelling facilities. Heavy but necessary equipment is carried safely, quickly and economically."

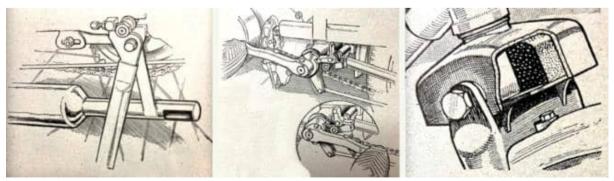
"ONE OF THE FEW active clubs to-day that was in existence at the outbreak of the last war is the Streatham and District; therefore, as the Club has some experience of wartime conditions, I was glad to hear that the committee had decided to arrange a skeleton programme and was determined to keep the Club alive while hostilities continue. The Club hopes to carry on with its general work and, of course, its clubroom will be open as usual. Other clubs might like to bear this in mind when deciding on their policy in the immediate future. An even older club than Streatham, the MCC, at a recent special meeting, decided to cease activities for the time being. Those members who had entered for the High-speed Trial which was to have been held at Brooklands on September 9th will have 75% of their entry fees returned—a very generous gesture."

"IN SPITE OF WAR, development of the Aspin rotary-valve engine is still going on, and the Aspin principle is being applied in, many fields. The ability of the engine to run on ordinary fuel at high compression ratios has resulted in considerable interest in many spheres. There is a possibility that when peace returns we shall have a high-efficiency motor cycle that will function perfectly on the cheapest 'commercial' spirit."

"ALREADY THERE IS a big swing from cars to motor cycles in the North. Petrol restrictions on the one hand and the undoubted advantage which the open air, as compared with the 'glass-house', gives under black-out conditions is bringing back many ex-motor cyclists into the fold. In both the Lancashire and Yorkshire industrial areas really good second-hand models are at a premium, several dealers being sold out. One well-known rider-agent told Wharfedale that he was going out to seek and, if possible, buy recent models in order to meet his waiting list of 'returned prodigals'."

"HAVE YOU EVER heard the buzz of a squad (or gaggle) of mosquitos? Secondly, have you ever heard the warbling of air-raid sirens at a distance? You've heard the one, but not the other? Well, down at Torrens' home one evening last week we went into his workshop and I hadn't been there half a minute before I said, 'Why, there's an air raid!'" It wasn't an air raid at all, but merely that our entering the room had disturbed a few harmless mosquitos, which apparently haunt that portion of the country just outside the town which friend Torrens inhabits. The noise was exactly like the warbling of sirens heard from a big distance."—Nitor.

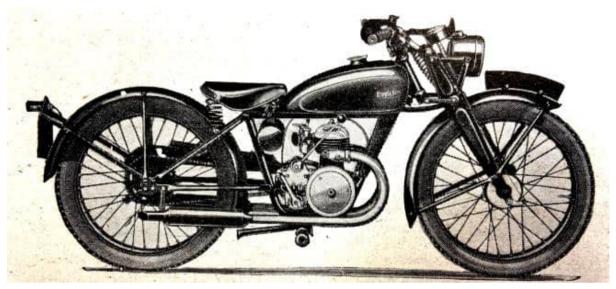
"TO JUDGE FROM the large number of orders in hand the smallest machine in the Francis-Barnett range is one of the most popular, and this well-deserved popularity is likely to increase in these days of fuel rationing. This little Powerbike (Model K50) has been modified from the original in details only. The 98cc Villiers engine with its clutch, flywheel, magneto and carburettor, is neatly enclosed, so that the rider's clothing is protected from oil and from contact with moving parts. Extra comfort is provided by the simple but effective rubber-buffer forks, and the long and substantial carrier shows the manufacturers appreciate that owners of this type of vehicle need to carry parcels...Apart from the Powerbike, the Francis-Barnett main programme remains much as before, and may be divided into four groups of two machines each. The Snipe models are powered by the Villiers three-speed unit, the larger (K48) having the 125cc unit, and the smaller (K49) a capacity of 98cc. Except in the



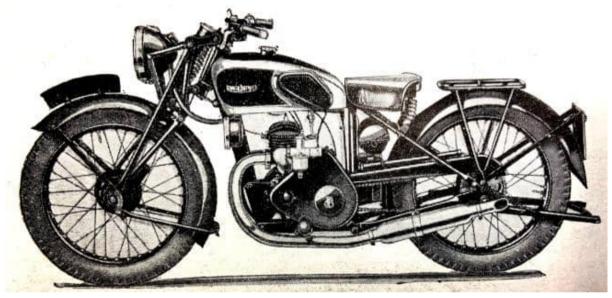
L-R: "The silencer tail-pipe of the Powerbike is blanked at the end and has a slot cut in the side." "The new back-pedalling brake gear on the Powerbike. The inset shows the

catch in the open position and about to be tripped by the pedal." "Rubber blocks are ingeniously employed in the front fork 'springing' of the Powerbike.""

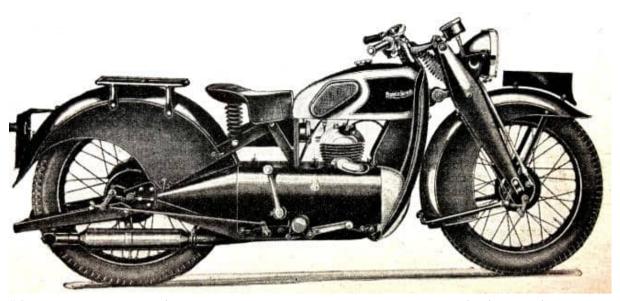
matter of size the two are identical and the price, £27 10s, is the same for each model. The engine and gear unit is carried in a composite-type frame developed specially to suit it. Both brakes are of 4in diameter and the tyres are 2.50-19. In the next group are two Plovers, K40 and K41, both of 148cc...in this case the Villiers engine drives through a separate Albion three-speed gear box. The K40 has a direct-lighting set from the flywheel-magneto dynamo; the K41 has a 6-volt Miller dynamo-lighting set with a 13ah. battery, an ammeter, and dimmer switch...equipment includes an electric horn, 5in brakes and 19-3.00 tyres...One of the most successful productions of the Francis-Barnett works, the Cruiser, is available in two forms. Model K45 has a long-stroke, flattop-piston Villiers engine of 249cc and a four-speed Albion gear box with positive-stop foot-change mechanism. Ignition is by flywheel magneto, but lighting current is provided by a Miller 6-volt, 36-watt dynamo chain-driven from the crankshaft. Lubrication is by the petroil system. Outstanding constructional features are the head and front member, which are made from a single steel forging; the self-locating torque arm of the rear brake, which simplifies the replacement of the rear wheel; the low and well-protected location of the accumulator, which is placed directly behind the gear box; and, of course, the total en-closure of all moving parts except for the wheels and a very short length of rear chain. This enclosure of the works within quickly detachable panels, combined with the deeply valanced guards and the long legshields with inner valances, makes the Cruiser one of the most practical all-weather models that has ever been marketed. Further, the question of cleaning is reduced to a hose-pipe job. It should be mentioned that the rear guard forms a quickly detachable unit, so that almost the whole rear wheel can be exposed in a very short time...the tyre measurements are 3.25-19. For those who prefer 250cc two-strokes of more orthodox appearance, there are two Seagull models, having a composite pressed-steel and tubular frame, tubular forks, Miller dynamo lighting and flywheel ignition, electric horn and 3.25-18 tyres."



"The l25cc Snipe: this model is also obtainable with a 98cc engine. In both cases the engine is a Villiers three-speed unit."



"The well-tried Model K41 Plover, which is fitted with a 148cc Villiers engine and a separate Albion 3-speed gear box. This model has separate dynamo lighting, but the K40 Plover has direct lighting."

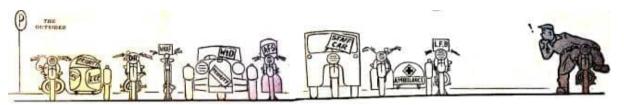


"One of the most practical all-weather models ever marketed, the Cruiser, which can be fitted with either a flat or deflector-type piston 249cc Villiers engine."

"IT IS WELL KNOWN that next to the development of new twins and fours the subject which of late has been uppermost in designers' minds is front forks. What has emphasised the desirability of change in this direction is, of course, the widespread adoption of rear-wheel springing. Front forks which appeared reasonably efficient in conjunction with a rigid frame tended to show up badly once the rear wheel was sprung. The fact is, of course, that improvement in forks is long overdue. Apart from their efficiency as regards the suspension side, all too few forks are adequately rigid laterally. There is usually insufficient bearing area to withstand the lateral loads, especially in the case of sidecar work, and in addition many manufacturers have tended to spoil whatever lateral rigidity their forks possessed by failing to make the shock dampers independent of the linkage. These faults should automatically be eliminated when the day comes that plunger-type forks are adopted. This, to judge from our chats with designers and from development, work that is known to have been going on behind the scenes, is only a matter of time—and opportunity."

"THE FEW WHO WERE on the roads last week-end learnt, for perhaps the first time, something of what motoring and motor cycling are like in other countries. The abnormally low traffic density which, according to our observations, was the rule last Saturday and Sunday is usual in most other parts of the globe. For instance, whereas the latest figures available show that the number of motor vehicles per mile of road is over 17 in Great Britain, in the United States of America it is only 9.7, in France 5.6, and in South Africa and Canada 3.9 and 3.2 respectively. No country in the world has anything like the traffic density of Great Britain, and congestion, let it be remembered, is one of the chief causes of road accidents. While war conditions unhappily do not promote freedom from accidents—preoccupation causes the standard of driving to become lower—there is no doubt that driving at present is infinitely more pleasurable

than on the congested roads of, say, ten days ago. It is there-fore good to see that the Ministry of Transport has no intention of holding up road improvement schemes unless this becomes inevitable. The belated £2,000,000 Great North Road scheme is proceeding, and so are other major road schemes. It is realised that our roads are inadequate. This has been emphasised over the past few weeks in the transport of food and other essentials. One outcome of the present strife may well be that at last the problem of the roads is tackled really seriously."



"WAR MIGHT BE THOUGHT to spell stagnation—that everything in the way of business would cease and not until the 'great unpleasantness' was over would the threads be taken up afresh. That was not so as regards 1914-1918. While at the present time it is obviously impossible to make comparisons—indeed, there are many who say that the past should be forgotten: this war is something fresh and totally different—the fact remains that after the last war there was an extraordinary advance in business and its methods and in motor cycle design and the motor cycle world. The four years in question were not wasted so far as motor cycle design was concerned: on the contrary, the 1919 Show revealed a degree of progress which in all probability would not have been approached if there had been no war and no dislocation of business. History may well repeat itself."

"IN THE LAST WAR petrol rations forced me to dispose of a 3½hp Norton in favour of a wee Levis two-stroke, in order to cover the necessary mileage on my issue of fuel. I happened to be living in a quite phenomenally hilly district, being confronted with a 1 in 5 gradient every time I went out; nor had I any very recent experience of small twostrokes. Moreover, the Levis had a single-gear drive, and by belt at that. For the first week it almost drove me demented, for up the long hill which had to be tackled on my most usual run it always dried up. To this day I am not quite sure whether the secondary cause was a mild piston seizure or pre-ignition, though the provocative cause was always heat. But I soon discovered that quite a brief pause permitted the engine to restart, and with a run-and-jump mount I was off again. Anon, when the piston bedded down, the whole hill was taken non-stop and most merrily. Moreover, the older and the dirtier that engine got, the more happily it climbed, the more easily it started, and the more smoothly it ran. These wee two-stroke engines are positive gluttons for work when once run-in, and infallibly endear themselves to anybody who is capable of relishing a good power unit. In particular, the way in which they will pobble doggedly up a really long hill is simply amazing."—Ixion.

A GLOOMY TALE!









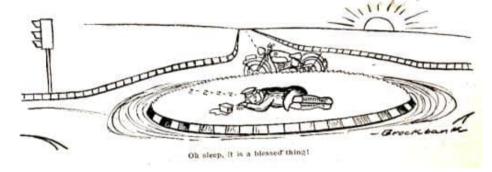
"Turn right and then keep bearing to the left "-

Ah! here we are-

turn right-

and keep bearing to the left-





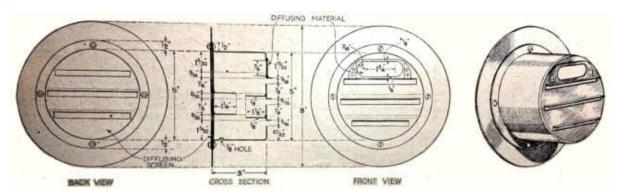
"A FULLY ATTENDED MEETING of the Management Committee of the ACU recently gave careful consideration to the policy of the Auto Cycle Union in the national emergency. It was felt that the organisation which has been so carefully and successfully built up for the encouragement and control of the sport of motor cycling should not be allowed to crumble away, and that the Auto-Cycle Union should therefore continue in existence with a skeleton staff for the duration of the war with a view to an immediate resumption of its activities after the war. Although the income of the Union will have practically ceased in the near future and its clubs will not be required to pay affiliation fees until full activity is resumed, it is hoped that it will be possible to maintain the national structure, and all local centres and clubs are entreated to remain in being and to keep in touch with headquarters. As to any activities of a sporting nature, the Union, having regard to the necessity for conserving fuel, will hold no open events until further notice. Should there be any suggestion of running any event other than a purely local one, the Union asks that the proposal should be referred to headquarters before it is proceeded with. Such modified forms of speedway racing as may be allowed by the Government will continue to be encouraged and controlled by the ACU. TW Loughborough, Secretary, Auto Cycle Union, London, SW1."

"BUYING SOME SPARE parts at a big dealer's the other day, I started chatting with the assistant. We got on to the subject of petrol rations, and he said that the car spares department was now lamenting the fact that only a couple of years ago they had thrown away the special paraffin carburettors which had been in stock since the final years of the last war. I suppose we shall see special carburettors on the market again—always supposing that ample supplies of paraffin are available and that the portion of the

Finance Act which makes it illegal to mix paraffin with petrol is repealed. If there is a shortage of motor fuel I imagine that it will be repealed pronto! When the assistant came to make out my bill for the parts he added 10% for war-risk insurance, which had been added, he said, by the manufacturer. I thought it was rather steep at the time, particularly as most spare-part prices were increased by 10% about a year ago on account of the increased cost of materials. Now I see that in other trades the same thing has been happening and has been widely denounced."

"IT MIGHT HAVE BEEN an ordinary club night in any of the hundreds of club-rooms in the country. The only difference was that all the lads were in khaki. Yes, I spent an evening recently with the despatch riders of a Signals unit, and it was one of the cheeriest evenings I have had for a long time. There was all the usual back-chat, the discussions, leg-pulling and general fun that go to make a club night, and these dozen fellows were In fact as much clubmates as if they had all been members of the same old-established club for years. The strange part was that, although some were members of ACU-affiliated clubs, one man was a staunch AMCA supporter, while one or two were not clubmen at all. I am afraid the AMCA man pounced on me for being an ACU supporter, and, of course, that started a long discussion on the pros and cons of the ACU. As usual, neither side got very much satisfaction out of the argument, because the unshakable AMCA view is that it is unfair to expect a purely private owner to compete against trade-supported riders. Until the ACU clubs agree to some form of discrimination between trade and private riders it would appear that the AMCA will continue to go its own way."

"A NEW-TYPE head-lamp mask has been devised by the Ministry of Home Security and will shortly be available. In construction the mask consists of two sheet-steel plates, welded together, each being provided with three  $\frac{5}{16}$  in slits so arranged that the slits in the front plate do not coincide with those in the rear plate. The slits in the latter are covered by a piece of non-inflammable diffusing material, and a metal strip forms a rain shield over each of the slits in the front plate. Internally there are four horizontal strips. In the case of a motor cycle using a single front lamp, the mask is provided with an additional aperture above the top slit 'not exceeding 2in in diameter or equivalent area, and visible from any point in front of the lamp, the aperture being partially obscured to reduce the brightness to that of a side lamp screened in accordance with the conditions laid down for obligatory lamps'. A satisfactory diffusing material is described as being of white or colourless material, matt on one or both sides, and having a transmission factor of approximately 70%. A head-lamp bulb not exceeding 36 watts is permissible. The internal surfaces of the mask must be dull black, but the colour of the outside is immaterial. There is nothing in the regulations which makes it necessary to blacken the lamp reflector when an approved type of mask is in use."



"Constructional details of the new officially approved mask for motor cycle head lamps. Both back and front plates are provided with three  $\frac{5}{16}$  in slots, and, in the case of motor cycle masks, there is, as shown, an additional aperture at the top."

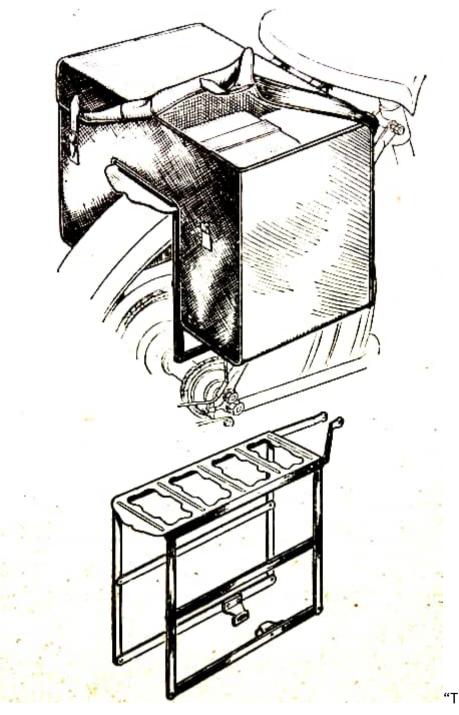
"IN TIMES LIKE THESE it is easy for club members to lose touch with one another, particularly when on active service. The Ilford Club, with this possibility in mind, has started a register for members who are in the Services, either at home or abroad. Members are asked to forward their addresses to Mr BC Furse, 51, Latimer Road, Forest Gate, London, E7, so that other members may obtain these addresses when wishing to correspond. Here surely is an extremely useful service which all club secretaries might give to their members. When you have a hard job of work to do it is easier to carry or remember the address of one man than of a dozen or so. If every club member could be certain that letters addressed c/o his club secretary would be forwarded, correspondence would be facilitated and more people would be encouraged to write letters and to keep up their friendships. Here are a few more notes about club activities. First, the London Touring and Bar-One Clubs have written to say that their clubrooms are open to motor cyclists who may be billeted in their districts. The London Touring Club meets on Thursday evenings at the Rising Sun, Ebury Bridge Road, London, SW1, and the Bar-One boys meet at the Pear Tree Inn, Harlington Road, Hayes, Middlesex, on Wednesdays at 7.30pm."

"A WEEKLY SUNDAY meeting has been arranged for Hackney Wick Speedway members at Rye House, where the club will foregather on Sunday afternoons until further notice. A note from the North-East London Club states that all activities have been suspended until the end of the war. Awards for the Weller Cup and President's Touring Trials are in the care of the jeweller, Mr HW Shuttleworth, 507, High Road, Tottenham, London, N17, who will be pleased to hand over trophies and medals to their owners if they call.—The Clubman."

"GOOD NEWS FOR LEARNERS—Lifting of Ban on Provisional Driving Licences. Slowly but surely wartime motoring, and everything connected with it, is settling down on common-sense lines. At first the attitude of Authority seemed to be, 'Stop everything!' Restrictions upon the nation's activities were applied wholesale, but because they were so wholesale and put into effect almost immediately war broke out they were accepted

with a good grace. From the psychological angle the Government was right. Just imagine the outcry there would have been if the Order enforcing rear lights on bicycles had been an isolated piece of legislation!"

"WE MOTOR CYCLISTS share the common perplexity as to how to spend long winter evenings, when outdoor movement is awkward in a darkened world, places of entertainment close 'early or down', and road-work is curtailed. All sorts of substitute occupations are current, from chess problems to bridge, or learning languages, or making super wireless sets, or machining up wee engines for model aeroplanes. Perhaps the most appropriate for men of our kidney is to pick up some rather decrepit but originally super motor bike, such as a tenth-hand Brough Superior, and start reconditioning it from A to Z with the notion of being better mounted after the war. I hereby issue a warning against one type of evening occupation. One pal of mine has formed a small group, including fellows who can prattle German and Italian, and they tune-in a big superhet to all kinds of foreign stations. Having thus voluntarily and foolishly offered themselves as victims on the altar of propaganda, they go to bed war-obsessed and in a state of violent flap. I think it makes for health and sanity to switch off the radio after the 6pm news at latest, unless one listens exclusively to good music or British variety."—Ixion.



"These lightweight

panniers have been designed for use on motorised bicycles. They are made of waterproof fabric reinforced with three-ply, and are quickly fitted. The price is 15s 6d complete. George Grose, New Bridge Street, London, EC4."

"THE RATHER BALD STATEMENT from the RAC that it is illegal to use paraffin to eke out the petrol ration most certainly needs qualification. It is *not* illegal to *use* paraffin in a vehicle subject to Road Tax. The illegality is in the use of an imported hydrocarbon oil on which the appropriate 'petrol tax' has not been paid, and if that tax is paid there is nothing whatever to make its use illegal in a road vehicle. Anyone wishing, therefore, to use paraffin in a road vehicle needs to declare the fact to the Excise Officer for his

district, or, better still, buy his paraffin directly from the petroleum company's depot, in bulk, as 'tax paid' oil; it will probably be described not as paraffin but as tractor vaporising oil, or some such name.

## Wharfedale."

"I THOUGHT I WOULD get the facts correct regarding the use of paraffin with my 1930 500cc Raleigh, so the other week-end I tried running on 'White Rose' paraffin. The Raleigh has two petrol tanks, so I drained one and put a pint of 'White Rose' into it. Then I warmed-up the engine on petrol, after which it was an easy matter to start on paraffin. I covered 9.6 miles on the pint, equal to a mileage of 76.8 to the gallon. I obtained a top speed of 67mph, but the engine seemed best at about 35mph. The engine 'pinked' badly when accelerated hard, but after I had fitted an old plug I found that the engine did not pink so badly when the plug gap was about 0.035in. I made no modification to the carburettor, but I might add that the engine gets fairly hot, so maybe that's the reason. I found it impossible to start the engine on paraffin unless the engine was warm.

Jack Johnson, Featherstone, Yorks."

"HAD IT NOT BEEN FOR HITLER, the Motor Cycle Show that was fixed for November would have produced more of practical and technical interest than almost any previous exhibition. There is quite a number of new multis, not only on paper, but actually in the 'flesh', and some of them contain features of unusual interest. I have also seen new methods of rear suspension, and new methods of frame construction, which were all to be exhibited. Among other items there exists a delightfully neat autocycle that has a most attractive appearance and some very ingenious features. Production of all these novelties has, of course, shut down, as many of our factories are now busy with other matters. Perhaps it is hardly fair to whet your appetites when the dish must be withheld, but it is fairly safe to promise you a hearty meal when things become more normal. In the meantime, there is a very definite run on autocycles, and since, quite naturally, supplies of both material and labour have been upset by military requirements, you must not blame Mr Manufacturer too much if there is some delay in delivery."

"IN THE FIRST eight months of this year, British motor cycles valued at £680,019 were exported. This total compares well with the following 1937 and 1938 eight-month totals: 1937, £669,034; 1938, £621,567."

"MOTOR CYCLES REGISTERED for the first time during July totalled 6,109, compared with only 5,136 in July, 1938. Machines of the under-150cc class increased by over three times to a total of 1,768."

"THE RAC IS introducing a 'Get You Home' scheme for motorists who run out of petrol, with or without coupons."

"IT IS STATED that street lighting is to be resumed in Berlin."

"WIMBLEDON'S RONNIE GREEN has charge of another batch of speedway lads engaged on National Service in South London. Jack and Cordy Milne, Wilber Lamoreaux, and all the Americans have gone back to USA, and the Canadian riders to Canada. Most of the Australians left about three weeks ago, and another batch, including Vic and Ray Duggan, left last week. A notable exception is Lionel Van Praag, who is an air-raid warden on night duty in Wembley."



"These speedway riders are still providing 'fireworks'—but of a different kind! Here are Stan Greatrex, Nobby Key and Geoff Pyrnar taking instructions from Cecil Smith while Wimbledon's Dicky Maybrook adopts a characteristic stance on the right."

"NOT BEING AN OIL BARON I don't know what 'white oil' is, except that it must be one of the liquids slightly denser than petrol and less dense than paraffin, produced in the distillation of petrol. In the last war, just when petrol supplies were on the verge of being refused to civilians, a colossal wooden- cask arrived at Benzole Villa. I hoped it was beer, but on removing the bung an odour emerged which puzzled me. The liquid did not smell potable. On the other hand, it was neither petrol nor paraffin. A few posts later came a letter from the late Charles Binks, of carburettor fame, who also forwarded one of his special carburettors. He told me that the liquid was not subject to the fuel restrictions, and that it would function very nicely in a motor-bike engine. There were 50 gallons of it, and my pals and I rejoiced greatly, and got a huge mileage out of it. Some of us, who needed our machines very badly, were later reduced to all sorts of shifts—

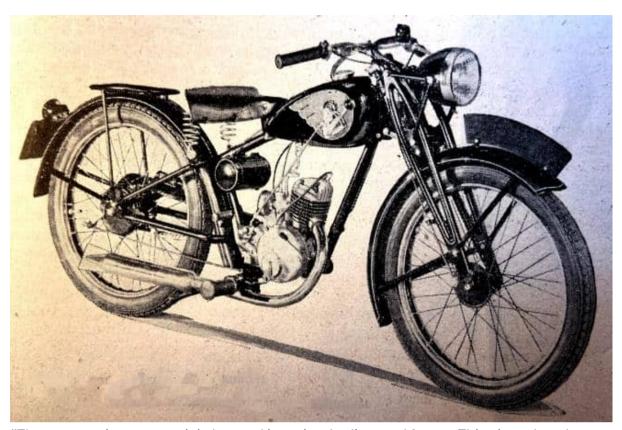
paraffin, gas-bags in the sidecar, and even to experiments with cylinders of dissolved acetylene, which produced the most devastating exhaust noises but could never be induced to give regular firing."—Ixion.

"VEHICLES USED in WD work are exempt from the usual classified speed limits outside built-up areas."

"A STRENUOUS 100-DAY test of a 250cc side-valve BSA is now being carried out in Australia. Eight men are riding the machine for 20,000 miles in four States."

"A 'FORTNIGHT'S HARD': It has taken FL Beart, of Brooklands fame, over a fortnight to grease and store away all his own machines and those of his customer-racers. His tuning establishment at the Track has now closed down—for the duration."

"FOR SOME TIME PAST experiments have been taking place at the Royal Enfield factory with a view to marketing an ultra-lightweight machine. The position is now such that details of the design can be given, though in view of present circumstances the makers find it impossible to guarantee delivery dates; it is hoped, however, that moderate supplies will be available in the near future. The new machine has many points of interest, chief of which is the engine and gear-box unit. It is a two-stroke of 125cc capacity with a bore and stroke of 53.79x 55mm. The sloping cylinder has two transfer ports leading tangentially into the bore, and the gases are deflected upwards by a piston which has, in place of the usual humped deflector, a specially formed indentation in the rear of the crown. The piston is made of heat-treated aluminium, and the gudgeon pin is fully floating...lgnition is by a special Miller flywheel-magneto of the 6-pole type, which is also used to supply lighting. It has a 6-volt, 27-watt output and lights a 24-watt head and 3-watt tail-lamp bulb. The head lamp has a dipper switch on the handlebar and the tail lamp is rubber mounted in the number plate. A needle-type Amal carburettor, specially made for this machine, has a single twist-grip



"The neat engine-gear unit is housed in a simple diamond frame. This view also shows the very complete equipment."

control and is fitted with an air cleaner; there is also a strangler for starting purposes. Lubrication is by the petroil system and the recommended proportion of oil to petrol is 24 to 1. A simple diamond frame is employed, and other features include a saddle tank, a cylindrical metal tool-box, a Terry saddle and a central stand. The front fork is unusually interesting; it is built up of two pressed-steel girders linked to the top and bottom of the steering head. From a cross-member near the top of the fork, stout rubber bands are stretched to a lug at the base of the steering head. A smaller rebound rubber band runs from this same cross-piece to another lug at the top of the head. All pivotal points are provided with greasers. Brakes are of 4in and 5in diameter, front and rear respectively; finger adjustment is provided in each case. The wheels are fitted with 2.50-19 Dunlop cord tyres, the mudguards are domed, and there is a light tubular carrier. The finish is in black with a dull-silver motif on the tank sides and a circular enamel name-plate bearing the initials 'RE'. The price is £25. A lightweight speedometer costs £1 15s extra."



"The new 125cc Royal Enfield is particularly sturdy, and incorporates a number of outof-the-ordinary features."



L-R: "Two stout rubber bands with a smaller rebound band provide the front-fork 'springing'." "The piston of the new Royal Enfield two-stroke has an unusual type of deflector." "Cylinder and head of the new engine. There are two transfer ports leading tangentially into the bore."

"AFTER THE FIRST sudden shock of the declaration of war, with its attendant black-out and petrol restrictions, club-life, along with most other things, is gradually settling down on its new level. The majority of clubs have now had their emergency meetings, and I am glad to say that with only one or two exceptions the clubs are carrying on."

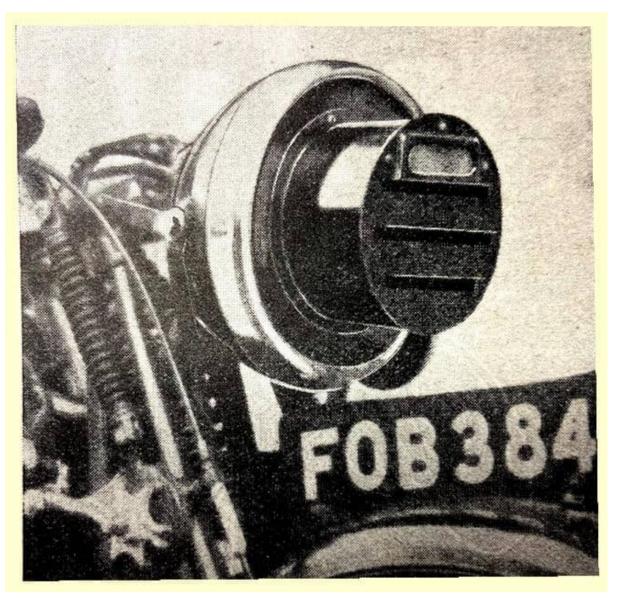
"MEMBERS OF THE DONS MC are determined to give concrete proof that they have not forgotten their fellow-members who are serving in the Forces. Those who are still civilians have evolved a scheme which will result in parcels being sent to their members abroad. A charge of twopence is made to anyone attending the weekly social evening,

and losers at the various indoor games in the clubroom put a penny in the box. One popular member runs a weekly raffle, and later whist-drives are to be organised. At present the income from these odd coppers totals about 10s a week, and this sum is to be devoted to getting items that the absent members want. The club does not intend to waste the money on 'stock' packets designed by enterprising firms to appeal to soldiers. As the organiser of the scheme points out, a man may be in need of socks or handkerchiefs, or other things that would not seem suitable gifts to those at home; so before anything else is bought cigarettes will be sent with a letter asking what the member requires most, and only then will further purchases be made. Full marks, Dons, for a good idea and for putting it into practice so soundly!"

"THE FIRST TRIAL to be held in Ireland since rationing started was run by the Leinster Club last Saturday. In order to serve the precious juice, the course was only ten miles long, but contained 28 observed sections. The event was run on conducted lines with officials accompanying the 19 competitors to each section. The large number of sections was made by using some pieces of roughery in both directions and others twice. Competition was keen, and AH Archer (497cc Ariel) beat Stanley Woods (499cc Royal Enfield) and S Russell (346cc Royal Enfield) by only six marks. These last two won first-class awards, together with R Kenny and RC Yeats."

"IN LAST WEEK'S ISSUE of *The Motor Cycle* details were given of the type of head-lamp hood which is to be compulsory for motor cycles. A member of the staff has since tested one of these devices under black-out conditions in the main streets of Birmingham and on about 20 miles of country roads in the vicinity of the city. The mask tested was one produced by JR Ferriday, of Vyse Street, Birmingham. It conforms in every respect to the demands of the Ministry of Home Security and embodies the special diffusing material which is a necessary part of the device. In the city, with normal wartime traffic on the roads, it was found that a speed of 30mph could be maintained with comfort. The lamp cast a light which picked up all obstacles, illuminating them sufficiently to rule out the necessity for sudden, heavy braking. Incidentally, the night in question was one of complete blackness and heavy rain was falling throughout the test. On country roads which were reasonably free from traffic, a speed of 45mph was reached and held, but it was found that, under these conditions, objects ahead were not discerned quickly enough to ensure a sufficient margin of safety. At a speed of 35mph there was no discomfort whatever; the rider did not have to peer intently into the darkness, and obstructions were made visible in ample time to permit of reasonably gentle braking. Undoubtedly, the new mask is a great improvement on previous methods, and with their head lamps so equipped motor cyclists may venture forth with complete confidence. One noticeable feature was that the kerbs on both sides of the road could always be seen, and the position of the machine on the road was never in doubt. The rider was thus able to concentrate on what was directly

ahead, with the result that excellent progress was made. This 'Feridax' head-lamp mask is available in sizes to fit head lamps up to 8in in diameter; the price is 5s."



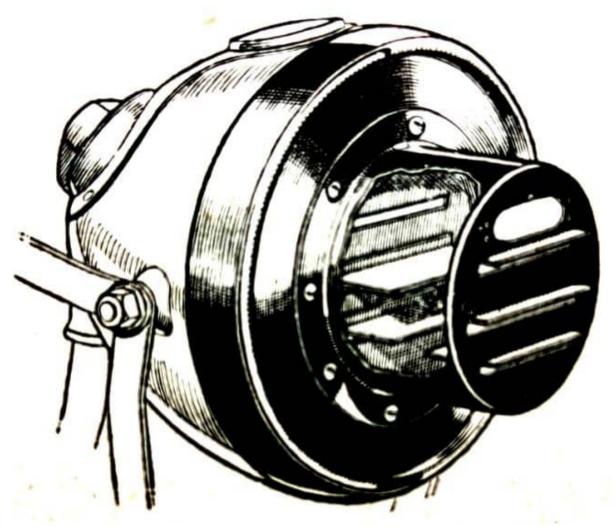
The 'Feridax' approved-type mask in position; it is available in sizes to fit head lamps up to 8in in diameter."

"IT IS OFFICIALLY stated that the new approved head-lamp mask has been tried on Army vehicles under observation from the air and found satisfactory."

"A NUMBER OF Northern motor cyclists have been given supplementary petrol rations in the form of three-gallon coupons. Awkward query: What does one do when one's tank holds only two gallons or less?"

"LUCAS HEAD-LAMP masks that conform with the new official regulations are now marketed. One type of shield available replaces the existing lamp rim and glass of Lucas lamps and is thus quickly clipped into position. The bulb fitted must not exceed 36 watts, but the reflector need not be blacked. Finished in polished black, the new

Lucas replacement unit costs 7s and 7s 6d, according to size. A cheaper Lucas shield is available which replaces the glass of the existing lamp rim. This costs 5s.



"The Lucas 'official'-type head lamp mask, which incorporates a lamp rim and is therefore extremely easy to fit."

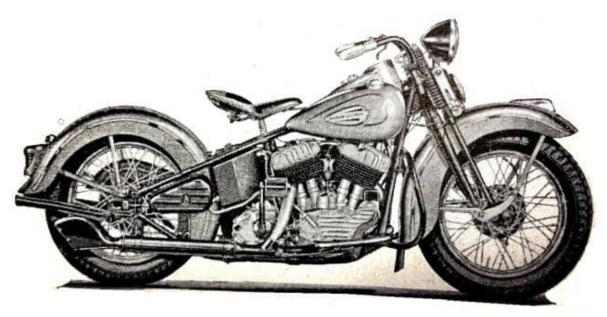
"BEEN READING IXION? 'The peach on the perch' was Mr Justice Bennett's definition of a pillioniste in the King's Bench Division last week."

"SOMETHING WE MISS: Impaired eyesight, nervous troubles and sickness are being caused by the 'day-light black-out' of bus windows, says the Belfast Coroner."

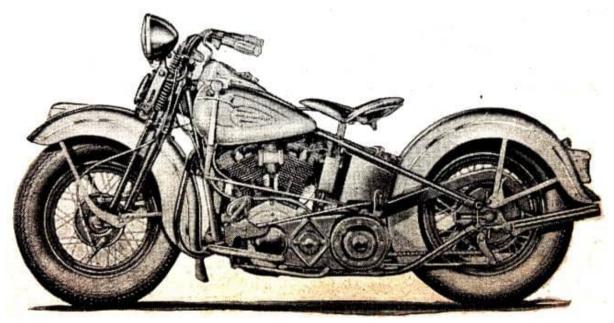
"ROMANCE IN A CLUB: Five couples in the Eltham MCC have married, and a sixth couple announced their engagement, since the war began."

"THE DYNAMIC BIG-TWINS are more streamlined than ever'—thus runs the announcement of the Harley-Davidson range for 1940. Basically, the four models remain the same. The range consists of a 1,000cc ohv model with totally enclosed valves, two 750cc side-valve twins, one with cast-iron cylinder heads, and the other with heads of light alloy, a 1,200cc side-valve twin and a 1,300cc side-valve twin.

Perhaps as interesting as any of the new features is the fact that for 1940 all models are offered with 5.00-16in Firestone tyres as an alternative to the 4.00in section tyres standardised. These exceptionally large tyres are specially designed for motor cycle use, and the claims for them are greater comfort, safety and tyre mileage. Whether by safety is meant safety on rough stuff and at speed is not stated. The matter is interesting, particularly as on fast British machines and on British trials models the rule is to use a specially small size of front tyre. Another new feature is a petrol tap operated by a knob on the tank. Unscrewing the knob as far as it will go turns on the main fuel supply, while lifting up the knob makes, in the case of the largest models, a reserve of about three quarts available, or about a gallon in the case of the 750cc machines [and as the spring that held the tap open had broken on my old Harley 45 I had to carry a box of matches to maintain a fuel supply—Ed]. Other points on the machine side are chromium name-plates on the tank in the form of a motif, streamlined tool boxes with a fluted ('speedlined') cover [now as rare as hen's teeth and selling for hundreds of pounds—Ed], and new and neater footboards; the familiar rectangular footboard has been discarded in favour of crescent-shaped boards. Nickel-iron cast brake drums are now standard on the front wheels of the larger models...Appreciably more power is said to be developed by the 1940 model 1,000cc ohv twin [the shape of the rocker boxes earned it the nickname 'knucklehead—Ed]. This has a carburettor of larger bore and a larger diameter inlet manifold of T-shape instead of the roughly Y-shape previously employed...On the machines of 1,000cc or over a four-speed constant-mesh gear box is employed. However, if desired, a three-speed-and-reverse gear box can be specified...Three-speed boxes with an improved gear change are provided on the 750cc twins. Bright colour schemes are available. The options are: 'Clipper' blue with white stripe; 'flight' red with black stripe; 'squadron' grey with 'bitter-sweet' stripe; and black with 'flight' red stripe. Silver with black stripe is available for police use only."



"Light-alloy cylinder heads and ribbed timing covers are new features of the 1,300cc Harley-Davidson. Note the safety bars which are fitted to all models in the range."

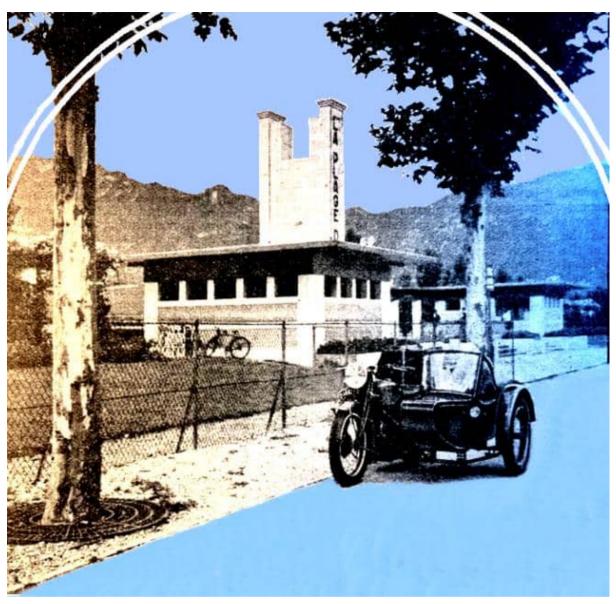


"All Harleys are now obtainable with 5.00-16 Firestone tyres. This is the 1,000cc overhead-valve model."

"YOU MAY REMEMBER that the Ixion Club of Oxford arranged to run a pedal-cycle trial for motor cyclists so that their members could keep their hand in at riding on rough-stuff. Well, the event was such a success that at the finish everyone asked that another should be held soon, and so the next one has been arranged for October 30th, and any motor cyclist is invited. The trial was run on normal lines, and the only machine restriction was that three-speed gears were sealed in middle gear. One mark was lost for footing, three for stopping without dismounting, and five for running alongside. Competitors were conducted to the sections, which consisted of muddy lanes, tricky bends and short, greasy rises, all of which called for skilled riding. Wheelspin was

proved to be a bogy, just as when riding on 'comps', and several riders flew through the air owing to lack of control of the front wheel. S Lacey, the winner, showed that it was possible to foot and regain control of a pedal cycle in the same way as on a motor cycle, but T Bowling found that a high saddle was a disadvantage. Results: 1, S Lacey, 13 marks lost; 2, R Wall, 15; 3, P Wright, 23."

"FOR 1,200-ODD MILES I have been using a Model H 570cc Royal Enfield and sidecar. This machine, it will be recalled, is sold only as a complete outfit, and fully equipped with lighting, speedometer, horn and screens, costs £62 10s. Included in the mileage has been a journey to the French Alps—a trip that included many miles of smooth, fast roads and almost as much rough, hilly going when the mountainous area was reached. Although the outfit is so moderately priced, the sidecar is well built and comfortable. It has a sheet-metal body and a light but strong tubular chassis, while the springing (coil springs in the front and leaf springs at the rear) is such that there is little or no pitching, even over bumpy roads. The upholstery is also excellent. A criticism concerns the dimensions of the body; an extra three or four inches on the length and an inch or two on the width would make a considerable improvement to the comfort of the average passenger. The wind-screen, too, could with advantage be placed farther back. A commendable point is the large locker space behind the seat squab. When the machine was taken over the speedometer registered under 200 miles, so the speed was kept to under 35mph for the next 300-400 miles. During this 'running-in' period I was conscious of a certain warmth in the neighbourhood of my



"Although costing only £62 10s fully equipped, the Model H Royal Enfield and sidecar is a sturdy outfit with pleasing lines."

right leg. However, the engine functioned satisfactorily, so I came to the conclusion that it was due to the somewhat extensive finning round the exhaust port being in an almost direct line with the driver's leg. Coil ignition is employed, and this, combined with the large flywheels and a suitable kick-starter ratio, made starting extremely simple at all times. Hot or cold, the engine would always fire immediately provided that the carburettor was well flooded and the throttle slightly opened. The position of the ignition lever did not seem to affect the matter of starting—always provided that a good swinging kick was administered when the ignition was over half-advanced; otherwise, of course, there was liable to be a kick-back. Long before the machine had covered the 'official' running-in mileage of 500 the engine was straining at the leash, and I found it required a conscious effort to keep below 40mph on the open road. Indeed, as the miles piled up, the big side-valve engine began to assume much of the liveliness of a good

overhead-valve job. Added to this it had slogging powers much above the average, and long main-road gradients could be tackled in top gear with little or no slackening of speed. Gear changing with the four-speed, foot-operated gear box was easy and noiseless, thanks to a large extent to the excellent clutch, which always withdrew cleanly and also took up the drive smoothly. As I mentioned earlier, my experience with the Royal Enfield included a trip to the French Alps, and it gives some idea of the lowspeed performance of the outfit when I state that, even in that mountainous area, rarely was it necessary to employ second gear. Never was it essential to use bottom gear (16 to 1), although this was often done to assist the outfit round tricky hairpins or to get the heavy load on the move on gradients. After the 500-mile mark had been topped I allowed the Royal Enfield to cruise at 40mph. The engine appeared to revel in its newfound freedom, and maintained this useful speed for mile after mile without the slightest sign of distress. The acceleration, too, improved with the miles. As regards road-holding, the Model H outfit left little to be desired. The pressed-steel forks have a long, smooth movement, and only the slightest amount of damping was necessary to check all trace of front-wheel hop. My passenger also commented on the absence of bounce and sway of the sidecar. Additional aids to comfort are a large Terry saddle and rubber-mounted handlebars. Steering, even with a heavy passenger and luggage, was of the hands-off variety, and only on very steeply cambered roads was there any tendency for the outfit to pull to one side. The brakes on the outfit under review call for slight criticism. Used together they were quite effective, but the rear one in particular was rather too spongy in action and required considerable pressure to produce effective retardation. Not until 1,000 miles showed on the speedometer did I test the outfit for maximum speed. Then the needle rapidly flicked up to 50 and on several occasions this speed was maintained for ten miles or more at a stretch.



"The Model H proved an ideal outfit for long-distance touring, and the large reserve of power of the side-valve engine enabled the steepest gradients to be tackled with ease."

The sheer maximum was approximately 56mph—this with a 9-stone passenger and a load of luggage. The highest comfortable cruising speed was 40-45mph, and this could be maintained apparently indefinitely. Having regard to the size of the engine the Royal' Enfield proved reasonably. economical. It would run on practically any kind of straight petrol (not omitting some French fuels of doubtful origin!), and taking good and bad together, the fuel consumption over the 1,200 miles was approximately 52mpg. With a lighter load and under less severe conditions there is little doubt that this figure could be considerably improved—particularly in view of the fact that the engine was almost brand new when I took over the outfit. Oil consumption was negligible. Throughout the time the machine was in my possession the tool-kit was opened only twice. On the first occasion in order to remove some dirt from the carburettor, and secondly to attend to a chafed-through lighting cable. In all other respects the Royal Enfield was faultless—not even a nut working loose. The mudguarding proved extremely effective and the engine was oil-free except for a smear around the sump filler-cap. Altogether a most interesting and practical outfit—one that provides economical motoring allied to a high degree of comfort."—Centaur.

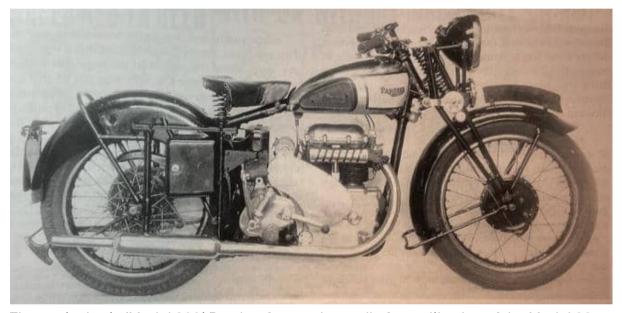
"DEVELOP OVERSEAS TRADE!' This, the Chancellor of the Exchequer points out, is most important for the successful prosecution of war. No one needs reminding that imports have to be paid for, that ships outward-bound need cargoes and that every £100

worth of goods exported, neglecting any imported raw materials they may contain, means another £100 towards bringing the present conflict to a successful conclusion. What the British motor cycle industry can achieve in this direction depends, of course, upon many factors, not least upon the extent to which the Government needs motor cycles and motor cycle factories for war purposes and upon the supplies of aluminium, steel and other materials essential to motor cycle construction. However, Ministerial statements stress that the country must export; presumably therefore the Government will do its utmost to facilitate the manufacture of goods for export. Several motor cycle manufacturers have recently approached us for suggestions as to what they with their factories should do, having regard to the national interest. It seems to us clear that they should carry on and, in this, do their utmost to develop overseas trade. In spite of, and in some directions because of, world conditions there are valuable markets for motor cycles overseas. By developing these they will be doing most useful work. Moreover, they will help to prevent any repetition of the blow the motor cycle industry suffered at the end of, the last war—of finding that the overseas markets had been captured by other nations and that therefore as regard overseas trade it was necessary, in effect, to start afresh. Incidentally, last year Great Britain exported motor cycles, parts and accessories to the value of no less than £1,130,374 [worth £93m in 2024]."

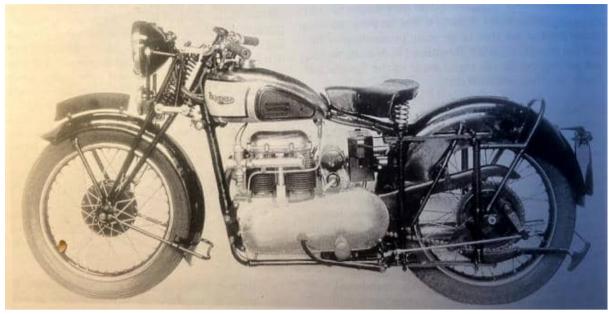


"DESPATCH RIDING TECHNIQUE: There is more in a despatch rider's job than merely being able to ride a motor cycle. This group of French DRs is undergoing instruction in tactics with the aid of a model village."

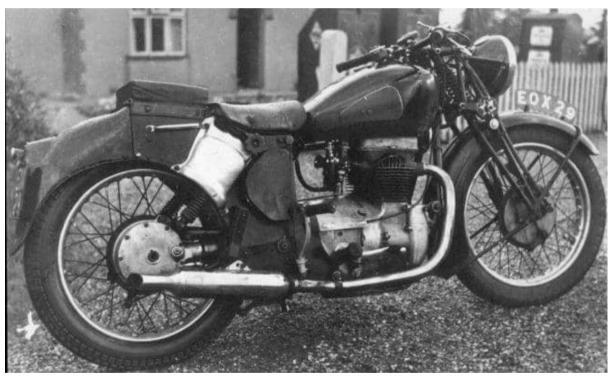
PANTHER MOTOR CYCLES are still in production, particularly for export, and large batches have been shipped to out neutral countries and the Dominions. In the North of England the drift of car owners back to motor cycles is still appreciable, and many 293cc Panthers are finding their way into the hands of travellers and business men in the semi-rural areas of West Yorkshire. The new spring-frame Panthers, which were announced just at the outbreak of war, are not yet available; in any case, production was not expected to be in full swing until 1940. The actual vertical-engined ohv model has been ridden thousands of miles by the Panther head-tester and West Yorkshire trials rider, JW Mortimer, and is giving excellent results in daily use. Also, the Panther designer travels to the works each day on one of the new side-valve machines with a heavy sidecar, leg shields, driving screen, etc, so that the experience that goes into the first batch, which may be put through shortly, will be based on bard day-to-day road usage."



The vertical twin 'Model 200' Panther featured a cradle frame like that of the Model 90 with an extended model 90 crankcase mated to a brace of barrels from the Model 60 250.

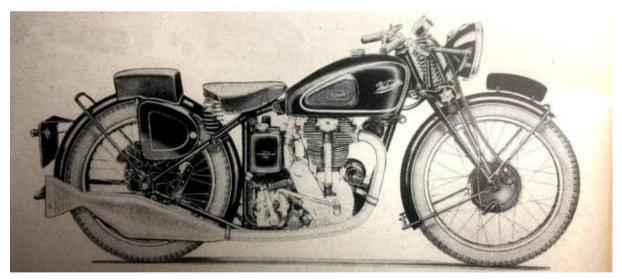


WW1 killed of P&M's V-twin; WW2 killed off Panther's vertical twin; only two prototypes were completed.



The other in-line vertical twin killed off by WW2 was a Velocette. The Model O was developed by Phil Irvine as a roadgoing version of the Roarer, which completed a practice lap but was not ready to race in the Senior. The model O was naturally aspirated, ohv rather than ohc and enlarged top 598cc. The engine was rubber mounted in a swinging-arm duplex frame.

"THE MAKERS OF Velocette machines, undeterred by war conditions, are determined to do all they can to maintain the output of their machines. It is impossible to market anything in the nature of a new model, or even to make modifications. Thus, Veloce are to carry on during 1940 with the full range of models that has been available this year. All Velocette machines are sold completely equipped, and the list price includes electric lighting and horn, trip speedometer, pillion seat and footrests, four-speed gear box with foot-change, polished crankcase and gear box, chromium-plated rims and totally enclosed front chain. Model GTP is the 249cc two-port, and, with its 3.00-19 tyres, 2¼-gallon tank, valanced mudguarding, and so on, is an excellent and reliable utility machine of an extremely economical nature. Its 1940 price is £49 10s. Next comes a range of three ohv models with high-camshaft engines, push-rod operated valves and automatic ignition timing apparatus enclosed in the timing case. These machines have prop stands in addition to front and rear stands. Mudguarding is unusually complete; the two smaller machines have 3.25-19 tyres and 2½-gallon petrol tanks, while the large model has a 3½-gallon tank and 3.50-19 front and 4.00-19 rear tyres. Prices are: Model MOV (248cc), £64; Model MAC (349cc), £67 10s; Model MSS (495cc), £77. Lastly are the two famous overhead-camshaft models, KSS and KTS. They are identical except for tyre and mudguard equipment. The former has sports-type guards and tyres measuring 3.00-21 front and 3.25-20 rear, while the latter has valanced guards and 3.25-19 front and 3.50-19 rear tyres. The camshaft engines with their alloy heads and totally enclosed rocker and valve gear are too well known to need elaborate description. Adequate lubrication of all working parts, including valves, is an important feature, and they represent a very high standard in single-cylinder design. Prop stands and 3½- gallon tanks are included. Both machines are of 348cc capacity, and in each case the price is £83."



"Full equipment is again a feature of all Velocette models. Here is the overheadcamshaft KSS, a fast sports machine based on the famous KTT racer."





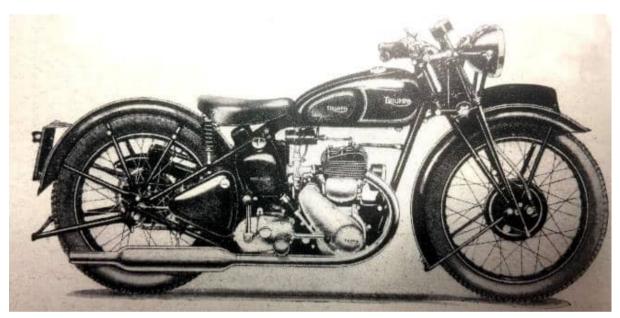


L-R: "How the valves are enclosed on the over-head camshaft models. The inspection plates have a four-stud fixing." "The push-rod operated on engine, which is available in 248, 349 and 495cc capacities." "The Velocette prop stand is simple, effective and neat."

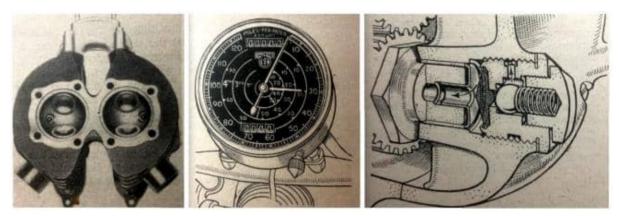
"FOR THE TIME BEING no repairs to AJS, Matchless or Sunbeam motor cycles can be carried out by the manufacturers, Associated Motor Cycles. The makers state that they will continue to do their utmost to ensure prompt delivery of any spare parts that may be required, and that they are confident that their dealers throughout the country will be pleased to carry out the work that otherwise would have been sent to their service department."

"IN SPITE OF THE WAR, the Triumph Engineering Company is in a position to produce a limited number of machines for the public. Of course, some of the interesting novelties which had been intended for 1940 have had to be held over, but it is safe to say that all wartime products will maintain the high standard of material and workmanship which is associated with the Triumph name. Further, special care has been taken to ensure that current models shall be as economical as regards fuel as is possible, consistent with a reasonably high road performance (consumption at an average 40mpg under good average conditions)....It is not possible to guarantee that the prices given can be maintained, since increases in material and labour costs may necessitate modifications in this respect: De Luxe 250cc ohv (2H), £54, 120mpg; Tiger 70 250cc ohv £59 120mpg; De Luxe 350cc ohv (3H) £59 110mpg; Tiger 80 350cc ohv, £64, 110mpg; De Luxe 350cc side-valve (3S), £56, 90mpg; De Luxe 500cc side-valve (5S), £60, 80mpg; De Luxe 600cc side-valve (6S), £65, 75mpg; Tiger 100 500cc ohv twin, £86, 100mpg; Speed Twin 500cc ohv twin, £80, 100mpg; 350cc side-valve (3SE), £48, 90mpg; 500cc sidevalve (5SE), £54, 80mpg. Both the 500cc twins, the Speed Twin and the Tiger 100, have under-gone certain modifications in order to keep up to date, but the singles are unchanged in their main features...All de luxe Triumphs have black panels with ivory lining on a chromium-plated tank. The external aluminium parts are highly polished which greatly facilitates cleaning, besides providing an attractive finish. Two further side-valve models—the 350cc 3SE and the 500cc 5SE—have been added to the range with the idea of making Triumph quality available to those whose purses are restricted. Such reductions in price as have been possible have been attained by careful attention

to details of specification, such as by the substitution of a pressed-steel primary chain cover for the cast-aluminium oil bath and, in the smaller model only, of coil ignition for a Mag-dyno. Further economy is to be found in the use of an all-black finish with gold lining in place of chromium plating, and lamp-mounted switch and ammeter instead of a tank instrument panel. The two 500cc side-valve Triumphs, Models 5S and 5SE, are 'light solo' machines, and have the lighter of the two types of Triumph frame. The 600cc Model 6S is intended for sidecar work."



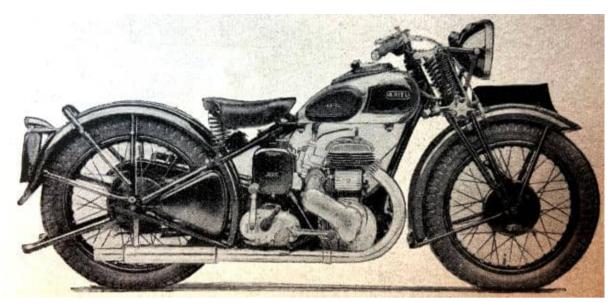
"A 350cc Triumph for wartime purses. It has a side-valve engine with coil ignition and the finish is black with gold lining. The present price is £48."



L-R: "A beautifully machined casting forms the cylinder head of the 'Tiger 100' models. As this view shows, great attention has been paid to cooling." "A combined rev-counter and speedometer is fitted to the Tiger models. The maximum desirable revs in each gear are shown by a coloured radial line." "In order to avoid loss of pressure through the crank bearing a piston-type oil seal is used between the bearing and the pressure-release valve on the Twins."

"THE POLICY OF THE makers of Ariel machines is to continue the range of models that has been available during 1939. All these are proved and tried designs which already

have the confidence of the public, and prospective purchasers may rest assured that no changes in design, material or finish will be made to any model during the coming season. One of the high-spots of 1939 Ariel machines has been the spring frame. After more than a year in the hands of riders in all parts of the world this frame has proved so satisfactory as to require no change of any description. The design utilises a vertical plunger with main and rebound springs, and a particularly noteworthy feature is the ingenious linkage system, which maintains a constant tension on the driving chain. Further, lateral rigidity—with consequent good steering—a minimum of unsprung weight and long life for all moving parts are secured. At the head of the list of Ariel machines are the Square Four models in 600 and 1,000cc capacities. The Square Fours have long been outstanding British multi-cylinder machines, and they are still exclusive in design and performance. The 600cc edition, which was reintroduced last year after having been redesigned on the lines of the 1,000cc model, is again available. The 1,000cc Square Four is to be marketed in both de luxe and standard forms. Two other types make a special appeal at this time. They are the 500cc side-valve and the 250cc overhead-valve models. The latter are obtainable in de luxe form as well as in the famous Red Hunter range. The Red Hunters are, of course, sports machines of high performance, while the de luxe models, although giving the same degree of reliability and general service, are designed for the rider who does. not desire extreme high efficiency. The 500cc side-valve is a type modelled on eminently sound lines and designed to give unremitting service under all normal road and weather conditions. As is well known, this is a type of machine greatly favoured by Army authorities owing to its ability to stand up to hard usage with the minimum of attention. In addition to the 250s, the Red Hunter range also includes examples of 350 and 500cc. These form a trio which has become famous in all branches of the motor cycle movement, especially for fast touring and competition work. Enclosed engine parts, clutches separate from the oilbath chain case, front forks with auxiliary damping springs, and rubber-mounted handlebars are features of Red Hunters and other Ariel models. There is a 600cc edition of the side-valve, and the de luxe range of ohv machines contains 350 and 500cc models. The de luxe four-cylinder has a quickly detachable rear wheel—a feature which is available as an extra on other models. All models are sold complete with electric lighting and horn, and the spring frame can be fitted at an extra charge to any machine with the exception of the 250s."



Sturdiness and reliability are proved features of the 500cc side-valve model."

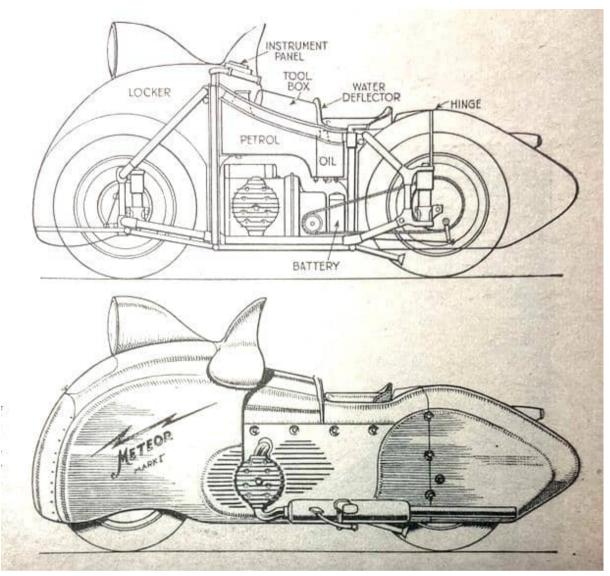
GUZZI claimed sixteen new world's records in the 250 and 350cc classes last week. The successful attempts were made on a stretch of the Milan-Brescia autostrada. The machine used was a 250cc model, and the riders were Alberti and Sandri. They took turns in the arduous job of steering the light little model in windy conditions. Standing start: One kilometre, 88.0mph; one mile, 99.1mph; 10 kilometres, 118.3mph; 10 miles, 121.3mph. Flying start: One kilometre, 132.5mph; one mile, 134.5mph; five kilometres, 124.7mph; five miles, 123.5mph.

"THOUSANDS OF MOTOR CYCLISTS are been to join the Armed Forces as motor cyclist despatch riders and thus put their knowledge and experience to the best possible use. While the number the Army can absorb immediately is limited, there are, nevertheless, openings for experienced men. The Royal Corps of Signals is at present accepting initial batches of volunteer despatch riders and more will be absorbed, in batches, as opportunity occurs. It is likely that 50 or more may be required each month. All readers who are not in reserved occupations, are medically fit and between the ages of 22 and 35 years, may, if they wish, complete the accompanying registration form issued after consultation with the War Office. This register is being compiled with a view to giving experienced riders an opportunity of volunteering as despatch riders, and will be used by the War Office as and when openings occur in the Royal Corps of Signals, or possibly, also, in other arms of the Service. It is necessary to stress that registration gives no guarantee of enlistment. Therefore, if the opportunity of serving in some other direction occurs before a volunteer on our register is called up he should not let the opportunity slip. On the other hand, he must, of course, advise us that his name is withdrawn from our register."

"US FOLLOWS SUIT: 1940 Indian 'Chief' and four-cylinder motor cycles have plunger-type rear-springing as standard."

"TYRE VISIBILITY: The sinkers of India tyres are marking the walls of covers with a broad white ring 'for the duration'."

'SEVERAL UNUSUAL FEATURES are to be found in a design for an all-enclosed motor cycle suggested by Mr WC Tomkins of 35, Southway, Wallington, Surrey. The frame of the machine is sprung at both ends, and the system of springing is similar to that which has already been taken up. by one well-known manufacturer. The steering layout is reminiscent of the OEC type, though certain modifications have been introduced in order to fit in with the unusual layout. The long drag links involve a certain flexibility in the cross bar at the bottom of the steering column, and this is provided for by mounting the column in a self-aligning ball race at the top, and the cross-bars in a slotted forging at the base. As a power unit, a flat-twin having the inventor's special arrangement of slide valves is suggested as suitable, although a water-cooled four-in-line with shaft drive might have been chosen had it not been for the matter of expense. Final transmission in the suggested design is to be by chain from a cross-shaft, and all the weight is carried low down. Accessibility for all parts is provided by quickly detachable panels, and the louvres for introducing and extracting air add rather than detract from the appearance of the machine. Frame rigidity and stability should certainly be features of such a machine, and as for windage, the effects would probably be less noticeable than might be expected."



"Two drawings of Mr WC Tomkins' proposed all-enclosed motor cycle. In the upper one the cowling has been omitted to show the fore-and-aft springing and the layout of the flat-twin engine."

"ITHOUGHT IT WOULD not be long before clubs found a way of running events, even under the present difficult conditions; and I was right, for I have had news of two economy events and two trials that have already been run very successfully, and details of future plans are arriving slowly but steadily. The economy-test run by the Manchester 17 MC produced some surprising results, the winner, E Mellor, on a 1939 349cc Velocette, averaging 145mpg. Incidentally, the four best performances were all made on Velocettes. Some members found the results so surprising that during the social evening that followed there were many discussions on the way the test should have been run—particularly with regard to riding methods. What the club actually did was to map out a circuit which was found to be 1½ miles long. Competitors had to cover this circuit twice, using the petrol in an auxiliary tank supplied by the club. The amount of fuel used by each competitor was then accurately measured by topping up the tank.

The club kindly offers to lend the apparatus to other clubs who might like 'to run a similar test. An economy test was also run by the Rugby Club, and an efficiency formula was worked out, although details are not given. In the results JG Kirwan (346cc Levis) obtained 152% with a consumption of 172mpg, while AF Greenhill (348cc Excelsior) obtained 142%, with 160mpg. Five members obtained consumptions of 100mpg or over."

"A DIFFERENT WAY of combating the petrol shortage was adopted in the Dublin University Club's Fall Trial on October 14th, for the event comprised eight laps of a 2½-mile circuit, in which there were a dozen observed sections. Only two competitors finished on time out of 26 starters; 11 retired. The winner was Peter Gill (348cc Norton), who secured 929 marks as compared with the 921 of the runner-up, Stanley Woods (499cc Royal Enfield). In addition to Woods, first-class awards were won by AHL Archer (497cc Ariel), 919; CHW Manders (348cc BSA), 911; and R Kenny (343cc Triumph) and RC Yeates (343cc Triumph), 857."



"POILU WAVES TO TOMMY: French military motor cyclists wave to a British convoy as it passes through a village 'somewhere in France'.

"IMAGINE THAT YOUR full-time job is connected with the development of motor cycles. It is rather a joyous thought, isn't it? But what would you do with your spare time? Would you also develop motor cycles, or would you—think of your own particular job for a moment—find something that took you right away from work and thoughts of work? No, it is not everyone who, if their job was the development of motor cycles, would devote

their spare time to tuning and track racing. Let me introduce you to FWS Clarke—Freddy Clarke—the chief of the Triumph experimental department. His time and opportunities for track racing, and everything connected with it, are distinctly limited, yet he has already achieved the distinction of raising the Brooklands lap record in the 350cc class to 105.97mph, and the 750cc record to no less than 118.02!...On previous occasions when I have visited the Triumph experimental department in order to obtain information about the performance of new models or for some other purpose. I have noticed that Freddy never makes a statement without being able to back it with figures from actual tests—all neatly written up in his log book. In the present year he rode in the now historic ACU stock-machine test of two vertical-twin Triumphs, but most of his racing has been with a 350cc engine mounted in a 250cc-type frame. With this he finished second in a three-lap race at the first Brooklands meeting, making the fastest lap at 103mph on a wet track! At the second meeting he equalled the 350cc lap record in his first race, and in a subsequent event raised it to 105.97! On Cup Day he rode an unusual machine for an unusual reason. The model was a 500cc twin bored out 0.010in, and the reason was to raise the capacity to 502cc so that he would not be competing directly against private owners of Triumphs. The result also was unusual. In his own words, for the first time he was in the position of having a machine with a performance far in excess of the handicapper's estimate. He won two races, and later beat the 750cc lap record at 118.02mph. From this brief history you will see that Freddy Clarke has not only the will to win on the track, but also the necessary skill both in tuning and riding."— Ubique.



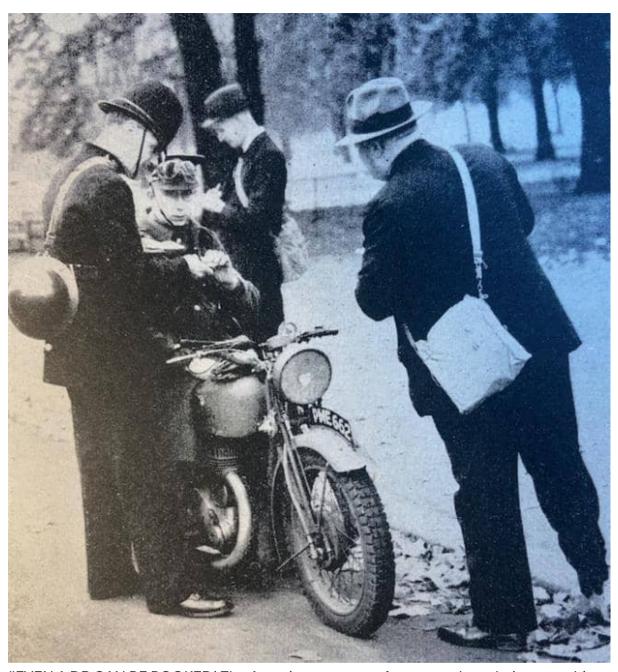
"Freddy Clarke tucked

right in on the 502cc Triumph Twin. In order to reduce frontal area he uses the narrowest handlebars that give complete control and endeavours to arrange his feet behind the clutch and gear box."

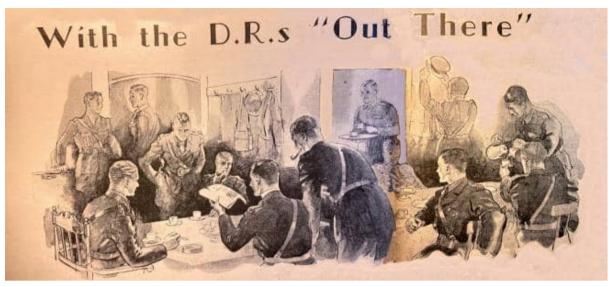
"WE HAVE BEEN able to press ahead with the new twin to an extent that would have been quite impossible if there had been no war.' This remark was made to us a few days ago by a well-known manufacturer, who added: 'I imagine that we are in no way unique in this; many other manufacturers must have found, owing to the advent of war, that their design and experimental departments had little to do, and therefore could concentrate upon the new models which will be marketed as soon as the war is over.' These comments are interesting in more than one connection. The present is a brief opportunity of pressing ahead with the new designs that were promised for 1940 and 1941, and of testing and proving them to such a degree that they will be in no possible sense of the word 'experimental'. One enterprising manufacturer told us last week that no matter how long the war lasts his new and very out-of-the-ordinary model will be continuing its tests. This is good, for there have been far too many cases in the past in which the public has been left to do much of the testing, or at all events has found faults which should have been eradicated in the experimental stage. On the other hand, by no means all manufacturers are devoting attention to experimental work in the way that might be hoped. It is surely wrong, even in these times, to regard the design and experimental sides of factories as 'non-productive', and therefore as affording the opportunity of reducing overhead expenses by a little far-from-gentle pruning."

"THE PETROLEUM BOARD'S decision to raise the price of 'Pool' petrol by 2d a gallon to 1s 8d no doubt came as a shock to many riders. On the other hand, older riders will recall that in 1920 the price soared to the almost incredible figure of 4s 7½d a gallon! A colleague tells me that in 1920 he was running a big-twin Harley and sidecar, and being young and somewhat impecunious at the time its thirst almost broke him. However, rather than dispose of a faithful friend he decided to try running the outfit on a 50/50 mixture of petrol and paraffin. Apparently the result was quite successful, apart from slight misfiring due to sooty plugs, and a lot of black smoke from the exhaust. 'At any rate,' said my friend with a smile, 'the scheme, plus an occasional "tip" from my sister's fiancé (for making myself scarce!) enabled me to keep on the road during what was undoubtedly the most expensive era in the lifetime of the sport.' Then he added mournfully, 'Alas! paraffin is now taboo—and I have no other sister.'"—Nitor.

"OWING TO THE PRESENT uncertainty with regard to insurance and the possibility of a general amendment of premiums for motor cycle cover, the British Motor Cycle Association has decided to introduce an entirely new insurance scheme. The policy, which offers extremely reasonable rates, is guaranteed by Lloyd's underwriters, and is available to all members of the BMCA."



"EVEN A DR CAN BE BOOKED! The Army is not exempt from speed regulations, as this picture of a too-rapid DR stopped in Hyde Park by the police testifies. But the plain-clothes men's 'service' gas-masks rather give the game away!"



"Glimpses of the Lives of the Men Who Form the Motor Cyclist Despatch Riders of the British Expeditionary Force—By PADRE"

"THE DAY'S WORK WAS FINISHED—as much as it could be, at any rate. One never feels that all the work is quite done in this kind of life, even when one uses every hour of the day and part of the night. Many miles of pavé, plenty of mud and the keen east wind which had blown over the countryside, had made us all ready for the snug warmth of the Officers' Mess and a good dinner. Over dinner we talked of little else but motor cycles and their ways. Some of the officers had not ridden since the war of 1914-18. Discussion, therefore, concerned the changes in design and performance which have taken place during the past 20 years. Some of the older officers expressed a desire to return to the 'good old sloggers', as they termed them. They held that the layout of those old models was simpler, and roadside repairs much easier. On the other hand, men of more recent experience argued that the modern machine is much more reliable, develops greater power and is more comfortable and stable. Of those present, 50% preferred twins for their flexibility, and the other 50% preferred singles for their simplicity. The most popular machines were those which could be driven slowly for long distances over bad roads, or at night when only a minimum of driving light is permissible. High maximum speeds may be useful in England, and also in some parts of France, but generally speaking, high speeds are not often possible under present conditions, and a good 'slowish' speed with a stable mount is preferred. One of the most useful things I brought out here is the elementary knowledge of motor cycle mechanics which I gained by practical experience and with the help of The Motor Cycle. At times it has enabled me to get a man's machine to go, or function better. In this lies no suggestion that our machines are unreliable—they are very reliable indeed. But occasionally one finds a new rider held up by some little thing, such as a 'mucky plug' (to quote Jess Oakroyd) or a blocked petrol pipe. The Field Workshops do the-periodical 'vetting' of the mounts. At these interesting spots are to be found some of the most likeable of men. In my association with them, which for various reasons is frequent, I

find that motor cycle cameraderie which is such a pleasure on English roads in peacetime. I find in conversation with them that it is not a long way from this fellowship to the higher one which it is my work out here to foster. The mechanics are riders themselves—some of them well-known racing and trials men. The despatch riders and other Army motor cyclists are full of praise for their efficiency and helpfulness.



Recently I built an epidiascope [projector] out of an empty petrol tin. When I had got as far as I could with my jack-knife and a pair of scissors, I found I should need some expert assistance. So I sought out a Field Workshop, where the Commanding Officer answered my request with, 'Certainly, Padre, you can ask the Workshops to give you all the help you need.' Of course, it was the motor cycle department I went to; and there the mechanics soon did the necessary tin-smithing, while the electric wiring was carried out by an electrician. When the job was finished we had a good laugh at its appearance, for I am not an expert designer and materials for this sort of thing are scarce. But the apparatus worked well, and we took sketches and pictures from The Motor Cycle and projected them on to the white roof of the van. When I left the men I felt sure they would make another for themselves. My epidiascope has now gone through its experimental stages, and I can get a good picture about the size of a double-bed sheet—all for less than 100 francs, including lens, electrical fittings and lamps. My next plan is to get interesting motor cycle pictures which will entertain the DRs and others. Sometimes, when the clock in my stomach points to tea time, I find myself near a big bucket of tea with a group of DRs standing around. In command is the cook, who hands out the mugs. Goggles go up on to foreheads, faces thaw into smiles, and the talk ranges round the French rules of the road, French and English styles of riding and driving, pavé (which gets some unfavourable comment from both French and British DRs), road camber, cafés, and so on. When the big chunks of bread and jam have disappeared and cigarettes are alight we talk of home, the touring we did during the summer, the bike we left behind us, and sometimes the fiancée or wife. Documentary evidence, or, rather, photographic evidence, is produced from the left breast pocket. Here is 'A' and his family beside Loch Ness, with the sidecar outfit standing by; then 'B' shows a picture of himself on his trials mount with his fairy on the pillion. Half-an-hour later comes the roar of many exhausts. Gauntlets are donned, goggles adjusted—and off they go, to work well into the night. They are stout fellows, the DRs, keen on their job and unselfish. Sometimes, after a day's rough cross-country work, I have heard them speak of the help they have received from trials riding in England. The British dispatch rider with his British mount under him is playing and will continue to play a great part of the present war.

Whatever lies before us these men and machines can be relied upon to do their bit. In the bright warm hall, which serves as a soldiers' institute, I often meet the DRs when they are off duty. With a draft-board, a cheery companion and a big cup of hot tea to hand (we drink no end of tea), I spend many happy hours, and when we have finished with the unpleasantness, I shall look back up on the companionship of the DRs with infinite pleasure."



"PL BEART, OF BROOKLANDS fame, is now engaged on aero engine research. And to what job is he better suited!"

"MILL HOUSE, CHELSHAM, Surrey, is now the headquarters of the FICM.Secretariat. The Secretary-General is, of course, Mr TW Loughborough, the secretary of the ACU."

"IN SPITE OF THE WAR, the FICM has an application for membership—from the Nouvel Automobile Club de Luxembourg."

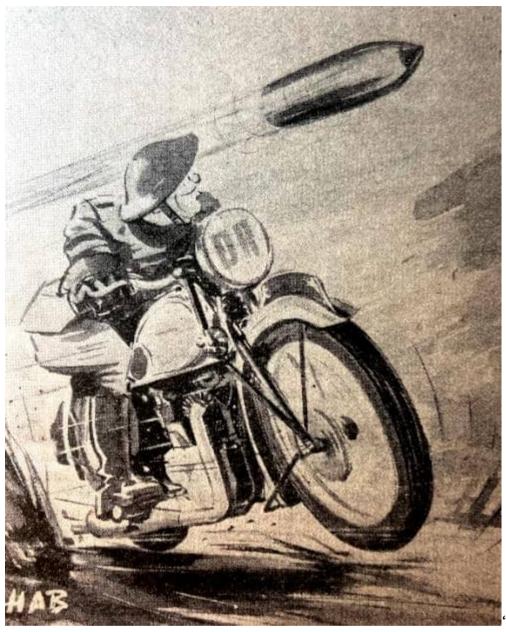
"WHILE THE FICM has moved, the ACU remains at 83, Pall Mall, London, SW1, with Mr. Loughborough in charge, aided by Mr Huggett."

"THE NUMBER OF clubmen affiliated to the ACU this year has been a record."

"AN APPEAL TO FIRMS in the motor cycle and other industries to collect their scrap metal is made by the Ministry of Supply (Iron and Steel Control). It is pointed out that such items as broken tools, disused piping and any articles containing iron or steel can now be put to national use."

"EXPORTS OF AMERICAN motor cycles for the first six months of 1939 show a decline as compared with the corresponding period of 1938. The actual figures are: 1938, 1,963 machines, valued at £107,238; 1939, 1,613 machines (£88,691)."

"THE ABOVE FIGURES contrast strangely with those covering the exports of British machines in the first eight months of this year. The total value of British motor cycles and parts exported was no less than £680,019; for the same period of 1938 the figure was £621,567."



"You ain't got

nothing on me, I'm still in third!"

"HISTORY REPEATS ITSELF. Just as on the occasion of the war of 1914-18, when *The Motor Cycle* pioneered the recruiting of motor cyclists, getting together thousands of practical men for the Motor Machine Gun Service, the RE (Signals), RAF, RASC (MT) and the Heavy Armoured Car Section (later the Tank Corps), so in these times completed registration forms for our official recruiting register reach *The Motor Cycle* offices by every post. There are, however, two big differences between then and now—even between the present and September, 1938, the 'crisis period', when, unknown to the world at large, we immediately approached the Director of Recruiting and Organisation at the War Office offering again to set aside a section of *The Motor Cycle* to help the Government and our big circle of readers. In the first place, a very large number of motor cyclists answered the calls to service during the year that elapsed be fore war broke out—many, as is proved by letters we receive, are already at the front. Secondly,

thousands of those who are keen to put their motor cycle knowledge and experience to use as Army motor cyclists are debarred from doing so under the Government's Schedule of Reserved Occupations. Probably no section of the community includes so large a proportion of highly skilled men as in the case of the motor cycle world—men essential to Britain's war effort on the home front. Such is keenness that many who are in reserved occupations have completed the registration form. It has been necessary to point out to over 50 that, unhappily for their hopes, they are ineligible."

"SIX MOTOR CYCLE despatch riders for duty overseas.' Thus ran a letter which the Editor received last week from the Manager, Transport Branch, of the Navy, Army and Air Force Institutes [NAAFI]. Six men who should be highly suitable for the work have been put in touch from our lists."



"IT RAINED IN TORRENTS on the Monday evening when the Manchester Eagle MC debated 'Do We Want Multis?'. I was down to open the discussion, and there were about 50 members in the club-room by the time I arrived—arrived after exploring every likely premises in another street of the same name before discovering in the Grand Blackness that I was in Postal District 13 instead of 11! Being more or less acting chairman, I couldn't take sides. It was, therefore, only necessary, in. order to start the ball rolling, to point out that multis are as old as the motor cycle movement: instance the four-in-line FN, the famous old JAP V-twin '90 bores', the flat-twin Douglas, the 90° V-twin Panther and the vertical-twin Scott. After 1919 came the transverse fiat-twin ABC, the flat-twin Humber, the Redrup radial three, the three-in-line Scott, and the light solo V-twins—the James, the transverse AJS, the narrow-angle Matchless V-twin (and V4), and the 500cc BSA. Yet, good as many of these were, not one of them scored an overwhelming success. Only when the Ariel Square Four arrived did motor cyclists become multiminded at all. The Triumph twin, by the same designer; increased the interest [let's not forget the Val Page-designed 6/1 Triumph vertical twin that preceded the Speed Twin— Ed] (incidentally there was a vertical Triumph twin in 1913), and undoubtedly the success of the BMW transverse flat-twin and of the Gilera transverse in-line four aroused concern among British designers as well as the interest of riders. It must not be forgotten, of course, that these Continental successes were often due to supercharging. Multis may be regarded as essential for blowing, but I suggested to the meeting that it was better not to confuse the issue on this score, as the supercharged job for everyday use is still a long way off. The points for discussion, therefore, were chiefly the advantages of the multi for the average motor cyclist. There was no lack of opinions, for there were representatives of all classes, from folk like scramble-expert Alec Parker (now an Auxiliary Fireman) to the ordinary member who never figures in an entry list

unless it be a 'main road' trial. One of the latter got in at once with: 'Everyday go-to-work riders outnumber the enthusiasts and it's the enthusiasts who want multis—we want simple and cheap machines, so it's the single every time!' Another member agreed, saying: 'Cheapness must come first, and that means a single. And anyway a multi is no good for mud-plugging, although if it was as cheap as any other kind everybody would prefer its smooth-ness for main-road work.' The views were many and various: 'Singles will always hold their own up to 350cc': 'The modern multi (vertical-twins in particular) owe their popularity to their high road performance and efficiency as compared with singles' ('No! They owe their popularity to the boosting they have had in the technical Press!' came a retort); 'What do you mean by "efficiency", especially if it's obtained at the expense of consumption? We want the most miles to the gallon'; 'What's the use of great bhp when road conditions rarely let you use it, anyway?' One man pulled out a TT programme and pointed out that in the old TTs when there were separate classes for singles and twins the consumption figures recorded showed the singles of that era to be far more economical than twins. 'If we are to have multis we are going back to a class that won't give us efficiency' he added. So far, so good. It has to be admitted that the multi is more prone to wheel-spin than the single, but mud-plugging is rather a specialised job and anyone who insists on doing it will, I suppose, have to buy the most suitable type and put up with its disadvantages in other directions. On the matter of 'efficiency' it seemed that too much stress was being put on fuel consumption (excusable in these ration days, I feel!). I suggested that fuel consumption was a matter of thermal efficiency, which was very different from all-round efficiency. A diesel engine's thermal efficiency is very high indeed, but the diesel engine sacrifices all sweetness and smoothness in operation and nobody would enjoy riding a dieselengined motor cycle! Efficiency must include consideration of all-round performance. Many machines, I added, are looked upon as petrol drinkers only because they have such a thrilling performance that it is hard to resist using it. (This was borne out by a Tiger 100 rider, who said he was getting over 100mpg by driving gently in order to keep within his fuel ration.) 'Couldn't we revert to decent singles?' was asked by a man who reminisced about a 550cc side-valver that was so smooth that you often couldn't tell if the engine was running during a traffic block. 'What's the use of 90mph anyway?' he asked. Then a member spoke bitterly of the cost of lots of new valve guides, pistons, and so on. 'I should only have had one or two to buy for a single. Why have such expensive machines?' A nice, woolly big-single certainly has a charm of its own, but it cannot be called efficient in every sense of the term. Its big flywheel and low compression ratio make it smooth and docile, but if you want it to 'go' you have to carve lumps off the flywheel and raise the compression until the engine becomes almost impossibly rough. Such an engine gets docility and smoothness at the expense of everything else. Sacrifice the former qualities and you can get urge. The multi, however, gives smoothness because of its smaller but more frequent power impulses, while at the same time it can produce enormous power and super acceleration. As to cost due

to 'complication', the example of the small-car world is worth studying. Car engines are 'complicated' but seldom give trouble. The number of parts doesn't matter much; and if a thing with a number of small, lightly stressed parts is more reliable than one with a few big and heavily stressed parts, the facility of getting at the 'simple' engine is a claim that falls to the ground. As to first cost, the public ultimately gets what it wants at the price it can afford to pay. Some rather pertinent points were raised regarding vertical-twins and also on transmission questions. Was the vertical-twin with its two crank pins in line truly a 'multi', or was it just a camouflaged single? The answer, it seems to me, is this:



"A glimpse of the final half hour in the club-room."

Such an engine unquestionably has the same mechanical balance as a single, but for equal capacity it provides twice the number of (smaller) power impulses in the same time; its output is smoother, therefore, and, because among other things its valves and pistons are lighter and smaller, its acceleration is better, and because its cylinders are smaller it can employ a higher compression ratio for an equivalent freedom from pinking. Regarding transmission, one member said that his earliest motor cycle recollections were of his father's four-cylinder FN, and he praised its beautifully made shaft drive, which never gave any trouble. 'Isn't it only the multi that makes shaft drive possible?' he asked. That question, I think, can be answered (with reservation) in the negative. We must not forget that there was a small single FN with shaft drive, just as there are single-cylinder shaft-drive BMWs to-day. Multi-cylinders favour shaft drive undoubtedly, but it is not by any means certain that shaft drive, even with a modern 500cc single, is impossible. The trouble is that, for some reason, no maker has the incentive to get down to the problem. Transmission, to my mind, is one of the weak points of the motor cycle industry. I do not mean mechanically, but from the aspect of manufacturing policy. Chain drive is easy. Too easy! It can be bought off the shelf

piecemeal. The multi-cylinder engine would permit of considerable lightening of transmission, but the proprietary gear boxes now on the market are designed either for light-weights or for single-cylinder four-strokes up to 500 or 600cc. In consequence we have recently seen such mechanical absurdities as, on the one hand, a tiny twin twostroke with the heaviest four-speed gear box that is made, and on the other hand, a transverse 1,000cc vee-twin coupled to the gear box from a 10hp four-cylinder car; the one many pounds too heavy, the other stressed too much, but both used because they were the only available products that would fit. The adoption of the multi engine will certainly call for a redesign of machine layout and transmission components if full advantage is to be taken of all the multi can offer. This was rather borne out by several members who condemned the Bianchi and Gilera 'fours' as purely racing freaks of little interest to ordinary motor cyclists. To sum up, the strong sporting element obviously favoured singles; others (from experience) said they preferred multis because they give speed, acceleration and real road performance without noise, fatigue or endless tinkering. I sensed a marked leaning towards the multi, but coupled with it was some anxiety about first cost and running cost. I believe that if the idea of expensive repairs can be broken down the multi will come into its own in all sizes from 350cc upwards. By this time the room was becoming hazy with smoke; we had gradually backed our chairs away from the fire round which we had informally conducted our discussion; the ladies had dashed out to make cups of tea, and not a few hands were itching to handle the darts and the table tennis bats in the last half-hour available. Then, as one member put it, having learned 'more and more about less and less', we departed into the Darkness."



"VOLUNTARY

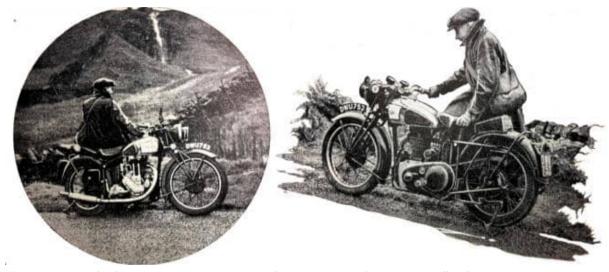
CATERERS. Troops on the move served with tea and sandwiches at a village where they had paused for rest."

"Wharfedale" Tries Out-

## The New Spring-frame Panther

"MORE OFTEN THAN NOT there is a Snag in the good things of this life. In this case it was the weather. A common enough trouble, in all conscience, but extremely disappointing when there was the prospect of a couple of days in some of the best country in England—to me at any rate. I was to have the loan of the first of the new

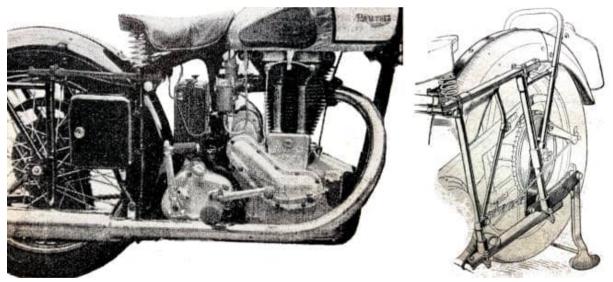
Model 90 spring-frame vertical-engined ohv Panthers, and so nothing could be more appropriate, I thought, than a trip up the Dales—Wharfedale, Wensleydale and Nidderdale—where I might find peace and quietness and have a pleasant potter round in the mild 'Indian summer' that was upon us. But instead of being at Cleckheaton at a reasonable hour in the morning it was lunch-time when I arrived, for the fog and the gale over the Pennines was a battle between 10mph visibility and 'over 25mph' steerability in the side wind. Without any waste of time, therefore, and with only a most cursory glance at the model and the way the taps turned, I was away into a thin, persistent drizzle.



"Wharfedale' with the Panther on the high moors of Stake Moss." (Right) "Thanks to the Panther decompressor and the roll-on rear stand, re-starting on a hill is easy. This picture reveals how neat and unobtrusive is the spring frame."

Actually, I was lucky to have the machine at all, for earlier that morning, before daylight, Tester Joe Mortimer had been brought low by someone who had jumped plumb off a moving bus and galloped into his front wheel. Unfortunately, Joe's knee suffered more than the Panther, which showed only a grazed head lamp rim. From Cleckheaton through the outskirts of Bradford and so over the divide between Airedale and Wharfedale, on a greasy day, is no pleasant start for sampling an entirely strange machine. Nevertheless, I instantly felt at home on the Model 90. As a matter of fact, it was rather uncanny, this immediate feeling of being a part of the machine. Stone setts, stretches of by-pass roads which I know to be appallingly wavy, various upstanding sewer and water-main manhole covers, and so on, just seemed to have disappeared. Yet there was nothing springy or jelly-like about the model—indeed, I think I can truthfully say that while there was never any tendency to be thrown up from the saddle, and no suspicion of any spine-shattering blows, I have seldom been on a machine that felt so firm and 'solid'. As I rode beyond Ilkley into Upper Wharfedale the rain got steadily worse. Gone were any hopes of browsing in the sunshine at the head of the Dale. The autumn glory of gold and red was still on the trees at Bolton Abbey, where I halfheartedly took a photograph and carried on. The spring frame was so comfortable that I

began to think of other things, entered a corner on the deserted highway much too fast, put on the brake hard, and then realised that the brake I had put on was on another machine with the pedal on the opposite side! All I could do was to hold the Panther firmly at the appropriate angle and hope it wouldn't slide off the adverse camber. We survived! Where mountain rivers are followed closely there are no long straights, and most of the Yorkshire Dales roads have blind or semi-blind corners every two or three hundred vards. Even so, owing to the liveliness of the new model, it was not long before the hamlet of Buckden was reached, where starts the climb of Cray Ghyll to the summit of Kidstones Pass, which drops into Wensleydale. How I had looked forward to this bit of wild country! But the mists swirled over Stake Moss, and the clinging drizzle fell softly and continuously. Still, the waterfalls at the top of Cray were cutting white tracery down the dark limestone cliffs, so, rain or no rain, the camera had to be set up. Then over the top and into Wensleydale. Strange how it contrasts with Wharfedale! Here are massive trees, mossy buildings, and pleasant green gardens—none of Wharfedale's grey and rock austerity at all, yet it lies only on the other side of a range of 1,500ft hill-tops. Later, becoming somewhat mixed up with much military activity, I turned towards the mountains again, found a resting place before darkness set in, and almost distinguished myself at the billiards table. Next morning was clear, but still wet, as I headed for Nidderdale. On high ground the mist was dense, too; nevertheless, there were one or two chances to hold '50' or over for fairly long stretches.



Placing the engine vertically in the frame represents a complete breakaway from the usual Phelon and Moore practice." (Right) Details of the leaf-type rear springing. There are no working joints in the assembly."

And just as the machine as a whole feels firm and solid so, too, does the new ohv engine. The engine has a plain-bearing mainshaft, and the fly-wheel assembly is very rigid and free from whip, so that there is no clatter or vibration. Acceleration is lively and the pulling power remarkable. For instance, Greenhow Hill, leading from Nidderdale and Wharfedale, and one of the severest main-road hills m Yorkshire (or in the British Isles,

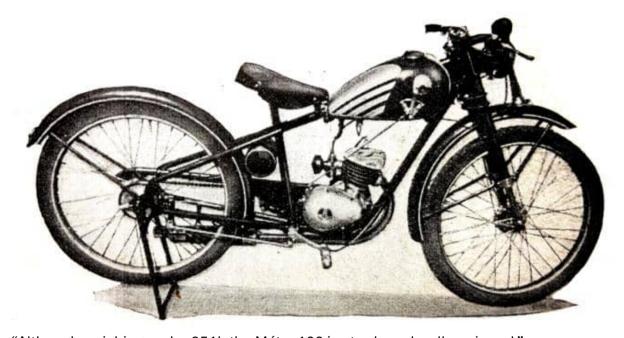
for that matter), was climbed in third gear with increasing acceleration from a rolling start. At Greenhow (1,400ft) the mist again brought speed down to 15mph, and so there was no opportunity for fast travel over the long moorland summits. A few more photographs, and then back to Cleckheaton for lunch—wet, muddy, but happy. The tank was topped up and revealed the consumption to have been slightly better than 90mpg. Like most of its breed, the engine did not show an oil leak. To sum up, the Panther spring frame seems to be 'it'. The model holds the road amazingly, has no fore-and-aft pitch, and feels absolutely solid and in one piece. It does not clash, bottom, roll or dither and has no unequal reactions on the brake, no matter whether the pedal is being pressed softly or hard. The saddle of this particular machine was a shade too high for convenience when at rest, but then Mortimer, who normally uses it, is well over 6ft tall while I am only 5ft 8in. On the road, however, brake, footrest position and controls proved to be excellently located, and this fact, combined with the almost complete freedom from road shocks and the sweetness and docility of the engine, made my trip rather effortless in spite of the weather.

"FOLLOWING A REVIEW of the various most meritorious officially observed tests held this year by the ACU, the Emergency Committee of the ACU Competitions Committee has decided to award the Maudes' Trophy for 1939-40 to the Triumph Engineering Company for their certified test carried out last February and March. The test, which was of two standard machines taken at random from agents' premises, consisted of 1,806 miles on the road at an average speed of 42mph (and no preliminary running-in!), six hours at ultra high speed at Brooklands, and, following, a run from Brooklands to Coventry, an official examination for condition."



"The Triumph Tiger 100 and the Speed Twin on the Byfleet Banking at Brooklands, where they averaged respectively 78.59mph and 75.02mph for six hours, during the ACU observed test that won the Maudes' Trophy for their makers."

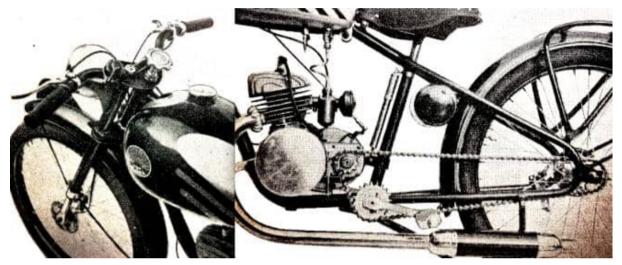
"AN EXTREMELY ATTRACTIVE representative of the autocycle type of machine is being made in Hungary under the name 'Mátra 100'. Although built to scale less than 821/2lb and thus avoid taxation, the machine has such features as a two-speed gear box, telescopic forks and telescopic saddle suspension. The Mátra" is fitted with a 98cc twostroke engine and gear box unit, and develops 3 to 3.5hp. A robust crankcase casting includes the back of the primary-drive case and half of the gear box shell on the off side. On the near side the casting incorporates the back plate of the flywheel magneto and the remaining half of the gear box shell. A cast-iron cylinder and a detachable light-alloy cylinder head are used, and both are deeply finned. Lubrication is by petroil. The primary-drive case forms an oil-bath. The clutch, which is also enclosed in the case, is operated by a lever on the near-side handlebar. A top-feed carburettor, fitted with a strangler, bolts directly on the induction stub at the rear of the cylinder, and the throttle is controlled by a twist-grip on the off-side handlebar. The complete unit fits very neatly into a tubular loop frame, which follows motor cycle rather than bicycle design. There is a single top tube, and the rear forks have welded-on ends. Extremely neat telescopic front forks are fitted, and there is a built-in steering damper. The saddle also has telescopic springing, the saddle post



"Although weighing under 851b the Mátra 100 is sturdy and well equipped."

operating on a long compression spring enclosed in the seat tube; the nose of the saddle is pivoted-mounted on a lug on the main frame tube. The single chain drive for both the engine and the pedal gear is ingeniously simple. To the rear of the flywheel magneto on the near side is the gear box driving sprocket; below and slightly farther back is, in effect, the 'bottom bracket' carrying a BSA free-wheel operated by the pedals; round these two sprockets and also a fixed sprocket on the rear wheel runs the chain; in this way the additional weight of a set of sprockets and a chain for normal pedalling gear is dispensed with. Obviously, with the Mátra layout the pedal gear ratio is rather high,

but the machine is designed as a small motor cycle rather than a motor-assisted bicycle. An internal-expanding brake is used on the front wheel and an external-contracting brake on the rear wheel. Other features are direct electric lighting, central stand, saddle tank, large tool-box, carrier and a chain guard. It is claimed by the manufacturer, Urbach Lazlo VI, Hunyadi, Ter 12, Budapest, that the Mátra 100 has a speed of 40-45mph and that the petrol consumption is approximately 175mpg. Certainly these little machines have given excellent performances in recent competitions. The intention of the manufacturer is to sell manufacturing rights either for the engine or for the complete machine."



"Telescopic front forks and a steering damper are unusual 'lightweight' features." (Right) "A BSA free-wheel mounted on the bottom bracket of the frame enables a single chain drive to be employed for both engine and pedals."

"RED TAPE IS MAINLY an exclusively 'home depot' commodity. At one such place they got an 'issue' of motor cycles impressed from dealers' showrooms. The machines had pillion seats and footrests, and as pillion riding is forbidden in the Army the pillion seats had to be removed. But when the riders wanted to take off the pillion footrests they were told 'No!' They must not remove structural parts of the machine! So they go about with the use-less 'steps' flapping and banging, and scar their ankles on them when they kick-start."—Wharfedale.

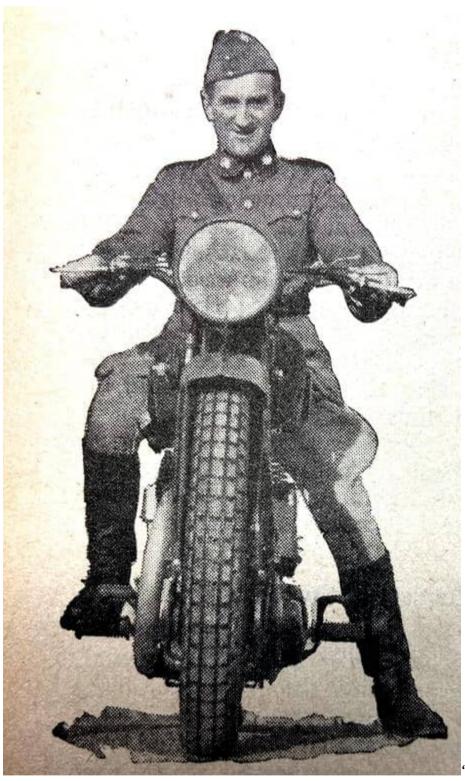
"A SUGGESTION THAT petrol coupons should be made transferable in an emergency has been rejected by the Ministry of Mines on the grounds that the plan would encourage profiteering."

"THE RAF SQUADRON LEADER who landed his flying boat off Iceland in a fog and, owing to a misunderstanding over the question of parole, returned to England, has taken a motor cycle back with him to Iceland in order to reduce the disappointment of being interned for the duration."

"A FRESH SIGNIFICANCE attaches to those phrases 'winter riding' and 'all-weather riding' when a civilian motor cyclist joins the DRs. Even the rigours of the Exeter Trial are apt to pale in the limbo of the past; there may be the equivalent of many 'Exeters'! I Unfortunately, as an Army DR he is nothing like so well equipped in the matter of clothing as the average civilian unless, of course, he continues to use his civilian riding kit. Many are doing this, though in the fear that sooner or later their temerity will evoke the displeasure of their superiors and, if it does not, there will be difficulty in replacing their stormcoats and waders on their Army pay. Whereas the Army teams in the International Six Days Trial, a summer-time event, had special riding kit, DRs, even today, are to be seen in pouring rain wearing only mackintosh leggings, a short mackintosh coat or a great-coat, with or without groundsheet-type cape, and a pair of gauntlet gloves that are by no means impervious to the wet. Considering the magnificent equipment of the Army as a whole, and the knowledge available from motor cycle clothing specialists and experienced motor cyclists, it is surprising indeed that the kit of the Army motor cyclist should remain of the 1914 variety."

"THE EXPERIMENT of painting New Forest ponies with white stripes as an aid to motorists in the black-out has been abandoned owing to the fact that the foals will not approach their zebra-like mothers."

"STANLEY WOODS is now a 2nd Lieut in the Government of Eire's defence services. His job is concerned with the Army's transport."



"Stanley 'joins up'.

Here he is as a lieutenant in the Transport Section of the Eire Volunteer Force—on a side-valve BSA!"

"OF ALL ANNUALS there used to be few hardier than 'Preparing for the Winter'. Even special numbers were devoted to the subject. The fact was that the motor cycle was far from being an all-weather vehicle. Driving belts slipped, magnetos required special forms of protection, nickel plating needed a protective coat of varnish or grease,

frequent treatment of driving chains (a chain seldom had more protection than a guard over the top run) was essential, and even hubs and valve gear required attention. To-day the position is very different. About all that is necessary is to protect the chromium plating or give it a frequent rub-over, attend occasionally to the still largely exposed rear chain, and (in some cases) fit a sparking plug protector. Fashion has decreed large areas of plating—much larger than in the days of nickel. Fashion, too, has prescribed 'impressive' plated exhaust systems. Were this 'showiness' eliminated and rear chains enclosed in oil-bath cases (an arrangement which has become increasingly popular on the Continent), there would be very little to do to the modern machine to prepare it for the winter months. The motor cycle has long since ceased to be a mere fine-weather vehicle."



"Mobility: A DR acts as whipper-in to motorised units of the British Army, 'somewhere in France'."

"THE EXCELSIOR RANGE of machines for 1940 again covers all requirements. There are certain curtailments, and one most interesting addition—a de luxe Autobyk fitted with a new Villiers engine. The Manxman models are continued in three capacities—250, 350 and 500cc. There will be no change in the specification of these famous machines, but an interesting point is that each is available with a bronze head, giving a much.. higher performance, at an extra charge of £10 in the case of the two smaller models and £12 for the 500cc job. These are the only four-strokes in the list, and the range is completed by three two-strokes (125, 150 and 250cc), and the well-known Autobyk models. First in the list of two-strokes is the Universal, a handy little 'go-anywhere' mount with a 125cc unit-construction Villiers engine. It has direct lighting from a 6-pole 18-watt flywheel set, and there is an independent park battery. Legshields are standard. This model costs £28 ls. The Pioneer has a 148cc Villiers engine. Here again direct lighting and legshields are standard, but in addition this model has a very complete system of chain guards. A separate three-speed gear box is employed. The price is £31 18s., or with separate 6-

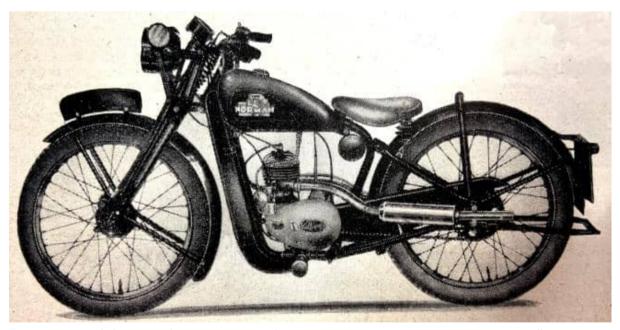
volt dynamo lighting and a 7in head lamp, £35 4s. Lastly comes the Meritor, of 247cc. In this case the engine has a detachable aluminium head, and the front forks are tubular instead of pressed steel. The price is £39 ls, or with dynamo lighting £42 7s. In the Autobyk class are two machines, standard and de luxe. They are identical except that the de luxe model has an entirely new Villiers engine. This new unit has a detachable aluminium head, a flat-topped piston, two internally formed transfer ports and two exhaust ports. A cast-aluminium expansion box is placed beneath the engine and from this a pipe leads to a cylindrical silencer. Finally there is a detach-able tail pipe. One of the most interesting features of the machine is undoubtedly the spring fork. It has no links, no hinged points and the movement of the fork does not alter the wheelbase of the machine. The fork blades operate in bushed sheaths and their upper ends are joined by a bridge-piece. The sheaths are also joined by a bridge-piece, which carries the steering stem. A long bolt is anchored to a lug on the lower bridge and this passes through a bush in the upper bridge and through an enclosed coil spring above the bridge. It also passes through a recoil spring placed between the two bridges. In action, the fork blades, which, apart from the wheel, are the only un-sprung weight, slide within the sheaths (which are packed with grease) and compress the top spring. They are then returned to the normal position and the lower spring takes charge of any rebound. The tension of the main spring can be varied to suit different loads simply by screwing down the top nut. Dust-covers are provided at necessary points and the sheaths have grease nipples; the sheaths are recessed internally to form a reservoir for grease."



"Several outstanding features distinguish the new de luxe Autobyk. In addition to the latest Villiers unit it has a 'double' silencing system and plunger-type sprint forks of ingenious design." (Right) "The plunger-type spring forks are interesting in that they have no links or hinged points."

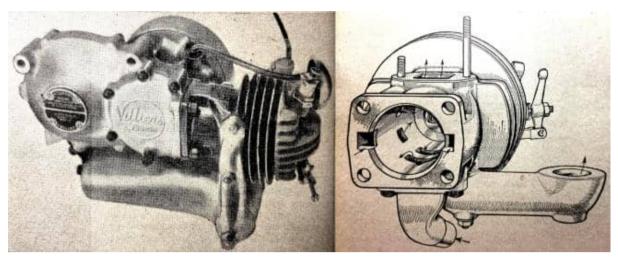
"IN THE NORMAN RANGE of machines for 1940 there are three variations of the already well-known Motobyk auto-cycle, and also a 125cc lightweight motor cycle. The standard Motobyk model has the 98cc Villiers engine-clutch unit fitted in the familiar horizontal position beneath a sturdy frame. Ignition is by flywheel magneto, which also

provides current for head and rear lamps when the engine is running; for parking, the turn of a switch lights a separate low-consumption bulb from a dry battery carried in the head lamp. Lubrication is by the petroil system. Both front and rear brakes are of the internal-expanding type and are of larger diameter than is usually found on machines in the autocycle class; both are cable-operated from the handlebars; a special anti-splash device is incorporated in the front mudguard. There is a serviceable rear carrier...The specification of the Norman lightweight motor cycle is very comprehensive. The machine has a Villiers 125cc two-port engine in unit with a three-speed gear box with clutch and folding kick-starter; the primary drive is totally enclosed in an aluminium oilbath and the cylinder has a detachable aluminium head. Ignition and lighting are by the latest Villiers 6-pole flywheel magneto, which gives 18-watt direct-lighting from a 7in head lamp equipped with a dipping beam double-filament bulb and stand-by dry battery. A strong loop frame is employed, and the front forks are of pressed steel with a central compression spring. The 1%-gallon saddle tank is of attractive shape and incorporates an oil measure in the filler cap...legshields are standard equipment, and the design includes such refinements as a spring-up rear stand and adjustable handlebars. The price is £28 13s 9d; a Smith's speedometer is an extra.



"The 125cc Villiers-engined Norman with pressed-steel forks and loop frame."

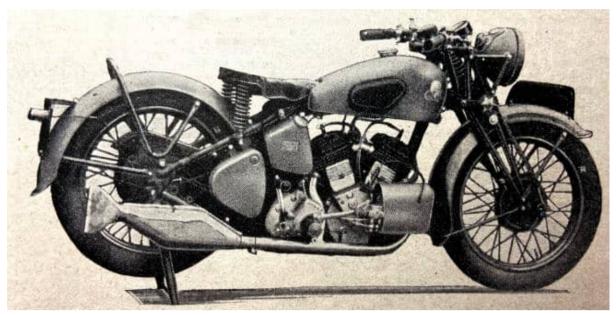
"A NEW DE LUXE Villiers Junior engine, based on the existing 98cc unit which has proved so successful in many makes of autocycle, has just been introduced...the 'hump'-type piston has given way to a flat-top type, and the cylinder porting is arranged on the lines of the earlier flat-top piston Villiers engines. There are two exhaust ports on opposite sides of the cylinder and four transfer ports. These latter are in pairs. The twin streams of gas from one pair converge and meet the converged stream from the other pair at the cylinder head. The effect is to help sweep out the burnt gas of the previous charge."



"The new de luxe 98cc Villiers engine-clutch unit has an exceptionally clean appearance. Features of the cylinder are circumferential cooling ribs and a bolted-on aluminium head. Note the neat exhaust system." (Right) "How the porting of the new flat-top piston unit is arranged. The arrows indicate the path taken by the gases. Each transfer port branches into two ports and the converging streams at gas meet at the cylinder head, thus assisting to scavenge the burnt gas of the previous charge."

"AN EXTREMELY INTERESTING 750cc side-valve 50° twin is being marketed for 1940 by OK Supremes. The engine is a JAP with detachable cylinder heads, a bevel-gear drive for the Lucas Magdyno and a cam-type engine-shaft shock absorber. The design of the machine is straightforward, but extremely well carried out. Among the features are a heavyweight Burman four-speed foot-control gear box, Neoprene clutch inserts, Ni-Fe (nickel-iron) battery, such as is specified on Army motor cycles, 7in brakes and an Amal carburettor with air-cleaner. Multi-plate shock dampers are fitted to the heavy-type central-spring front forks. The tyres are 4.00-19 rear and 3.25-19 or 3.25-20 front.

Transmission is, of course, by chain—Coventry chains, the front one in an oil-bath case. The machine illustrated, has a matt finish. Civilian-type finishes will, of course, be available. The makers are OK Supreme Motors, Warwick Road, Greet, Birmingham, 11."



"As this picture shows, the new 750cc side-valve OK Supreme-JAP is a handsome machine with clean lines."

"I ADVISE MOTOR CYCLISTS to mind their step when entering the personal zone of the wartime cyclist. A very small cycle shop in a very small town I know sold 15 new push bikes within the first week of petrol rations, because so many folk decided that what with restricted petrol, 7s 6d in the pound income tax and increased car tax, a car wasn't worth running. The same shop will probably sell 30 cycles round about December 31st, when the annual car licences expire. And most of these new or revived cyclists are even more perilous than the normal female of the species. They give no signals, they wobble fearsomely, and they are even apt to lose control of their wheels downhill. I have already narrowly escaped violent embroglios with hosts of them. Yesterday, for example, when meekly 'twentying' on my new two-stroke, I was about to overtake one of them up a hill of about 1 in 17 with a right-hand fork. As he gave no signal I rashly assumed that he was intending to continue straight forrard. Not a bit of it! He gave no signals because he was hauling heavily on his handlebars with both arms to assist his 'stand-on-the-pedal' climb. And just when he turned sharply across my bows for the fork his right leg backfired, so to speak, on a dead centre, and he fell off flat under my head lamp. I effected a marvellous skid-swerve and missed him."—Ixion

## A Miniature "Scott Trial"

"IN THE WEST YORKSHIRE group area there is an excellent bit of high, open country within a short run of the Leeds and Bradford districts. It has become a regular meeting place for sporting riders at week-ends in these days of short commons in the fuel department. This venue, the Surprise View, Otley Chevin, is adjacent to those spectacular crags, woods and hillocks that have figured in the Ilkley Grand National of recent years. Within the private ground adjoining the Surprise View Café there is enough

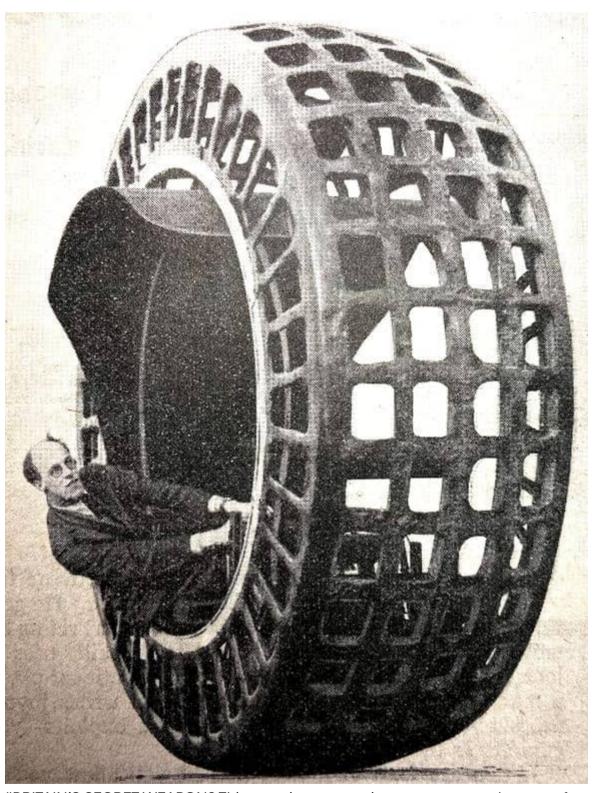
rough-stuff for half a dozen trials, all within a square mile or so. These impromptu meetings led to the idea of the Bradford MC organising a miniature trial last week-end, it to be run on Scott Trial lines, ie, observation and time, with 'standard time' set by the fastest competitor and a one mark penalty for each ten seconds beyond that time. The course was over six three-quarter-mile laps, four and a half miles in all, with nine observed sections. The start was at 12 noon in order to allow everybody to finish and get home before black-out descended. In the usual irrepressible way of the Bradford Club the title of the trial parodied the official title of the Scott Trial, for the announcement was the 'A Hitler Memorial Trial'. The naming of the awards, too, was topical, with a reference to the 'International' exploits of the Bradford Club's own Allan Jefferies for the premier award was said to have been 'pinched at great risk from the Bomb Cellar by the Captain.' The only opportunity they missed was that for each ten seconds late the penalty should be one Reichsmark! There were 28 entries in the event, but one of the number, Frank Varey, elected to take an observed point in preference to riding, although it is doubtful if be was any more comfortable by so doing! The wind blew a gale. And there was everything in the weather line—sunshine, rain (ordinary), hail, a marvellous rainbow across the flooded fields of Wharfedale, and then rain again (a deluge this time!). Spectators and observers had a pretty thin time and many found it more comfortable to sit on the wet grass in the shelter of a 12in bush than to stand up to the whistling breeze. Allan Jefferies was the organiser, and he explained away the protests about route-marking (which some voiced loudly after a practice lap) by the statement



"The event attracted many spectators as well as a good entry. Here are some of the crowd watching V Eastwood (BSA) tackling a muddy defile." (Right) "Although the circuit measured only ¾ mile it contained several tricky sections, such as that shown above. The rider is J Midgley (Royal Enfield)."

that 'at crack of dawn' he was blown over a precipice and his bundle of direction cards was wafted 'like a leaflet raid' all over Pool and Otley in the valley below! Anyhow, if some people strayed it did not matter much because the time marking had to be ignored and the event became 'observation only'. The terrific rain of the previous night had made some of the sections so hopeless that minutes were taken instead of

seconds to struggle up; indeed, the estimated 12 minutes per lap became nearer 25 minutes, even for the experts. As a matter of fact, it was not possible to distinguish between the riders very much—all footed and failed somewhere or other, and the only difference was that the stars wasted no time in sorting themselves out. John Midgley (Royal Enfield), Ken Wilson (Matchless), Howard Wood (Triumph), and Charlie Helm (Ariel) stuck fairly well together and seemed likely to have the honours among themselves. But then Wood seemed to fall behind somewhat (or else ran so far ahead that he appeared to be missing!). Helm, too, tried a new way up the worst and steepest section, only to find that it didn't work, and he fell behind. C Parker (Triumph), E Pearson (BSA), R Wilkinson (Panther), and T Wortley (Triumph) made up the early finishers, although there were several more who managed to scramble round within the half-hour of the first man home. Incidentally, the distance was cut from six to four laps because, according to Allan Jefferies, 'we don't want any perished observers on our hands'. The riders mostly were disappointed when they were stopped, and this in spite of nosedives into rocks and mud, lost footrests, and hosts of other things that come under the heading of 'we do have fun'. When the results were worked out it was found that only four competitors had lost fewer than 100 marks, and that the best performance had been made by R Wilkinson (Panther) with a total of 73. Elimination of the time factor possibly affected the final placings slightly, because the leaders on time had dropped many more marks than Wilkinson, who had ridden, for the most part, with care rather than dash. RESULTS. Hitler Beer Jug (best performance): R Wilkinson (Panther); marks lost, 73. Lord Haw-Haw Gobstopperlet (second best): K Wilson (Matchless); 80. Goering Belt (third best): J Midgley (Royal Enfield); 87."



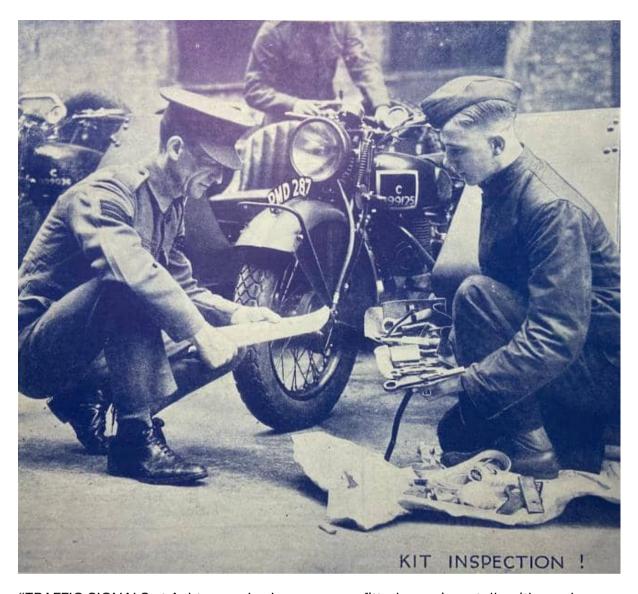
"BRITAIN'S SECRET WEAPON? This amazing contraption may appear to be a new form of 'tank', but in actual fact it is a motorised mono-wheel. Known as the Dynasphere, it was invented some years ago; it had a 250cc engine and a speed of 25mph was claimed."

"WAR, IT WOULD SEEM, has some points in its favour. After to-day, thanks to the present war with its black-out, it is illegal to park at night on the wrong side of the road.

To motor cyclists even more cheering is the news that at last they are to have the boon of short-period licences. No longer will the motor cyclist who buys a machine in, say, December have to pay a full quarter's licence. No longer will dealers find that the bulk of their sales are concentrated around Quarter Day. For years we have pressed for this reform. The motoring organisations, too, have returned time and again to the attack. What has caused the change is the Government's desire to help the many motor cyclists at the Front. Few of those on home leave would have been able to license and insure their machines on their Army pay."

"I READ WITH INTEREST your leading article on DR's clothing. I would like to say that until very recently we had only greatcoats and groundsheets to protect as from the elements. We were then issued with short mackintosh coats and leggings. As we have to work for as much as 48 hours at a time without even taking them off, and they get wet through in a remarkably short time, we don't have such an easy time as the majority of fellows think. This is the first letter I have written to your paper, although I am a constant reader, and also a member of the Aldershot MCC.

Don R."



"TRAFFIC SIGNALS at Ashton-under-Lyne are now fitted experimentally with masks which are closed down at night to show slots and opened in the daytime to give full lens view."

"THAT WORK SHOULD at once be started on the Channel Tunnel was urged at a meeting of Deputies held in Paris recently. The idea was first discussed in 1802." "

"BICYCLE THIEVES have been busy in the Metropolitan Police area during the past few weeks. The number of thefts has in-creased by nearly 100%, most of them taking place in the black-out."

"NEARLY 100 RIDERS have already volunteered for the Motor Cycle Messenger Corps inaugurated by the Chief Constable of Liverpool for use in air raids. A scheme has been arranged to assist those who own suitable machines which are at present neither taxed nor insured."



"THE RAC WILL AGAIN issue its usual winter reports concerning road and weather conditions in various parts of the country for the benefit of members. However, as information concerning the whereabouts and density of fog might be of value to enemy aircraft, all reference to fog will be omitted."

"SMALL REFLECTORS are being used in Leeds for marking the middle of roads; over 80 miles have already been completed."

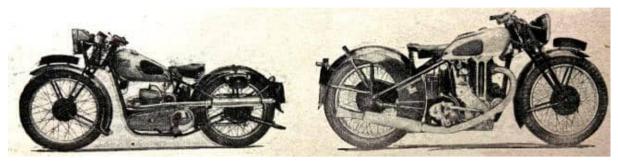
"THE OBJECT of a recent Sunday run of the Dalmarnock MCC was to visit one of their members who is serving in the Army."

"A SCHEME to install red lights in the bases of lamp standards in the main streets of Manchester is in danger of being shelved because of the cost—roughly £1,000."



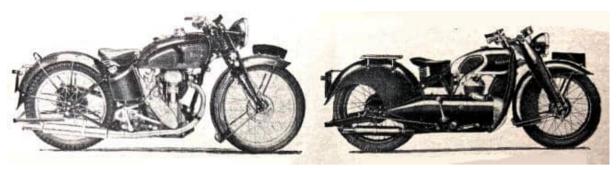
WAR OR NO WAR, the Blue 'Un published its annual Buyers' Guide, preceded by a summary of the 37 marques comprising the British motor cycle industry at the outbreak of World War 2: "AER: A Twin Cylinder air-cooled two-stroke of 350cc and a 250cc Villiers-engined two-stroke comprise the AER range. Both are well thought out, well-made machines; with everything of the best. AJS: Few makes have a larger overseas trade than the AJS. The range is wide—from 246 to 990cc—and all are true-quality machines of first-class appearance. Except for the 990cc models, which have V-twin side-valve engines, the 346cc ohc racing machine, and the 498cc single-cylinder side-valve, the list consists of ohv singles (all vertical-engined), with totally enclosed push-rod operated valve gear. The two big twins, which are specially designed to, heavy side-car work, are similar except that the 40/2A is an export model with footboards, long touring handlebars, a left-hand gear change, and foot clutch This machine can, if

desired, be fitted with a three-speed and reverse gear box." **AJW:** Three machines form the AJW programme for 1940, two with Villiers flat-topped piston engines of 250cc, and the third a 490cc ohv



"350cc two-stroke twin AER (Right) 490cc ophv Flying Fox AJW."B

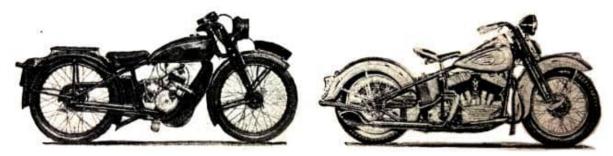
JAP-engined model. Duplex frames of I-section steel are employed. Ariel: While pride of place in the Ariel range is naturally given to the 599 and 997cc 'Square Fours', the singlecylinder models are outstanding examples of first-class design and workmanship. Among the ohv models the 497cc Red Hunter is notable for the fact that, although one of the fastest standard production 500s, at low speeds it has the gentility of a potterbus. Red Hunter models of 249. 347 and 497cc are available, also side-valve tourers of 497 and 598cc. All models in the range other than the 250s are available with the ingenious. well-proved Ariel rear springing. BSA: No BSA programme appears in the Buyers' Guide. The reason is not that this famous factory has discontinued making motor cycles. The many machines to be seen finished in khaki effectively dispels any such suggestion. The announcement of the range for sale to the public is to be made next month. BROUGH SUPERIOR: Designed for real riders by a man who is himself an exceptionally hard rider. The four machines are the 990cc SS100, which is an extremely fast ohy mount, a 1,100cc side-valve of remarkable docility and great power, and two 990cc side-valves. All except the specially low-priced 990cc side-valve have plunger type rear springing." CARLTON: A Sturdy, well-made lightweight of 125cc, the Carlton is manufactured by a very experienced cycle concern that has achieved considerable success with it in overseas markets. The engine-gear unit is the well-known Villiers, and has three speeds with hand change. COTTON: Few machines have gained for themselves such a continuous reputation for magnificent steering as the Cotton, with its famous multi-tube triangulated frame. For 1940 there are no fewer than 15 models, two-strokes of 125 and 150cc, side-valves of 250cc, and ohv models of 250, 350, 500 and 600cc. The four-stroke engines are of JAP manufacture and the two-strokes, Villiers. COVENTRY EAGLE: An autocycle, two two-strokes and a couple of four-strokes form the Coventry Eagle range. The autocycle is a simple sturdy machine of the thoroughly sound type that might be expected



"350cc K12 Manxman EXCELSIOR (Right) 250cc FRANCIS-BARNETT Cruiser."

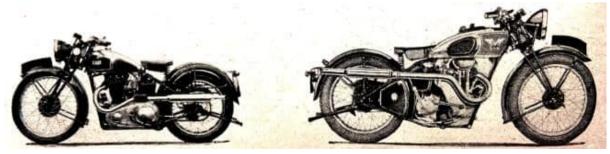
from a factory with such wide experience of bicycle manufacture. The engine is the wellknown Villiers Junior. Pressed-steel frames of the well proved Coventry Eagle design are fitted to the two larger two-strokes. Tubular frames are, however, employed for the 350 and 500cc four-strokes. CYC-AUTO: The Cyc-Auto for many has its own special appeal. A 98cc Scott two-stroke is fitted—the proprietor's are the makers of the famous Scott water-cooled two-stroke twin. The engine is mounted low down in font-of the bottom bracket and drives the back wheel by a reversible worm gear and chain. **DOUGLAS:** One Douglas motor cycle is on the market. This is, of course, a horizontally-opposed twin, a side-valve of 584cc. The design is on the familiar Douglas lines with the cylinders set in line with the frame and the valve gear enclosed in quickly detachable covers, on the off side and readily accessible. A four-speed hand-controlled gear box is fitted. **EXCELSIOR:** The Excelsior factory is unusual in that it has earned fame in two different spheres—for its Villiers-engined lightweights and for its very fast superbsteering overhead-camshaft sports and racing machines. While the present is not a time for supplying enthusiastic amateurs with racing machines of the type that can be the first un-blown machine home in the Lightweight TT, the famous Manxman range has not been dropped. The racing models, yes! but there remain three ohc Manxmen—of 249, 349 and 498cc—all based on racing experience and with cradle frames, Girling brakes and clever enclosure of the hairpin valve springs. At the other end of the scale come two well-made autocycles, one a new de luxe model with the recently introduced flat-topped piston Villiers engine. To add to the comfort an ingenious plunger-type front fork has been standardised on the de luxe machine. Three two-strokes, all with Villiers engines and of 125, 150 and 250cc, complete the range. FRANCIS BARNETT: Twostroke lightweights of marked ingenuity in design once again constitute the Francis-Barnet range. Outstanding in the list are the Powerbike and the 250cc Villiers-engined Cruisers, which have probably the most complete mudguarding of any machine on the market, plus enclosing shields for the engine and gear box that enable the machine to be hosed down and, in addition, eliminate all possibility of oil reaching the rider. In the opinion of many this unique machine, which has eroded remarkably successful, points the way in which motor cycle design will trend. The enclosure employed in the autocycle—the Powerbike—is on different lines, but extremely effective, free from drumming and setting a fashion which is likely to become

widespread. **GROSESPUR:** This is a well-made 125cc Villiers-engined lightweight with the engine in unit with a three-speed gear. Lighting and ignition is by a Villiers



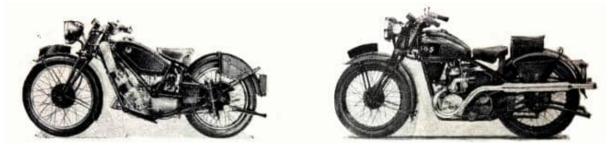
125cc GROSESPUR (Right) 1,300cc sc HARLEY-DAVIDSON TWIN."

flywheel set. A carrier and legshields are standard. HARLEY-DAVIDSON: Perhaps the most spectacular feature of the Harley-Davidson programme for 1990 is the unusually large tyres which are available at option, 5.00-16 Firestones specially produced for motor cycle use. The machines themselves are little altered. As usual the famous United States factory is concentrating upon big twins: two 750cc V-twins with side-byside valves—one with cast-iron cylinder heads and the other light alloy —a 1,000cc ohv V-twin, and two even larger side-valve twins, of 1,200 and 1,300cc." HEC: A number of improvements have been made to the HEC autocycle. On the cycle side there are such alterations as a larger and stronger tank, which now holds 11/8 gallons, bigger brakes and a spring-up rear stand. The engine is a two-stroke of 80cc with a detachable aluminium head that facilitates decarbonisation. JAMES: For 1940 the James Company is again concentrating upon two-stroke machines, from two auto-cycles' to a flat topped Piston machine of 249cc. In between are well-made lightweight motor cycles of 98, 125, 148, 197 and 247cc. All have Villiers, engines, **LEVIS**: Sporting ohv machines with many 'riders' features' top the list in the Levis range. This make has gained a name for itself for 'hand-made' specialist productions. Four sizes of ohy model are available: 247, 346, 498 and 592cc. The 350 and 500 can be supplied in competition trim. Both are available with the Levis hydraulically controlled plunger-type springing, which automatically accommodates itself to the load. The range is completed by a 346cc side-valve and two 247cc two-strokes. All engines are of Levis manufacture. MATCHLESS: As their names Clubman and Super Clubman imply, six of the nine Matchless machines specified in the Buyers' Guide are de-signed with the sporting



"SF5 LEVIS." (Right) "250cc Clubman de Luxe MATCHLESS."

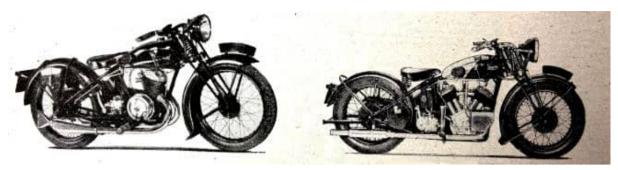
rider and those who like sporting lines specially in mind. The sizes are 246, 347 and 498cc, and all have push-rod type ohv engines with positively lubricated enclosed valve gear. Two coil-ignition machines are available—side-valves of 246 and 498cc. There is also the 990cc Sports Twin, which is a luxury-type fast solo V-twin or an excellent machine for use with a single-seater sidecar. MONTGOMERY: It is no exaggeration to state that of the spring-frame machines tested over the past 12 months the Montgomery was quite one of the best steering and most comfortable. For 1940 the spring frame is fitted to three JAP-engined ohv four-strokes of 250, 350 and 500cc. A series of two-stroke lightweights of 98, 125 and 200cc is also included in the list. MORGAN: It is difficult to conceive a more sporting type of vehicle than the Morgan three-wheeler. Three models are produced: A very smart super-sports machine with a water-cooled 990cc ohv engine, a sporting two-seater with a 1,172cc four-cylinder and a. four-seater with a 933cc four. The two latter are water-cooled side-valves. **NEW** GERRARD: Designed and marketed by JA Porter, who won the 1923 Lightweight TT and the 1924 Ultra-Lightweight, the New Gerrard has worthy ancestors. The machine is a 348cc ohv mount of sound, straightforward design. A four-speed foot-change gear box is fitted. This has three fairly close ratios and an emergency bottom. NEW IMPERIAL: 250, 350 and 500 are the sizes of the New Imperials listed for 1940. All are ohv singles with the four-speed gear box in unit with the engine. The primary drive is by helical gears. In the case of the DL or de luxe models, the New Imperial pivot-action spring frame is standard. NORMAN: Four Norman machines, three 'Motobyks' and a lightweight motor cycle are being manufactured. The engine used in the autocycles is the new de luxe Villiers. Standard, de luxe and carrier models are available. The 125cc Villiers-engined lightweight is of the engine-gear type and has a sturdy .loop frame, pressed-steel forks and legshields. This machine can be supplied with the 98cc engine if desired. NORTON: Single-cylinder



"596cc spring-frame Clubman's special SCOTT." (Right) "346cc water-cooled Magnetic SOS."

machines of 340, 490, 596 and 683cc constitute the Norton programme. A most important model at the present time is the famous 490cc side-valve introduced some 15 years ago—a firm favourite from its inception and now in its modern form to he seen here, there and almost everywhere finished in a drab, mudlike shade of khaki. Counting this, the famous 16H, the civilian edition. Nortons announce a complete range on

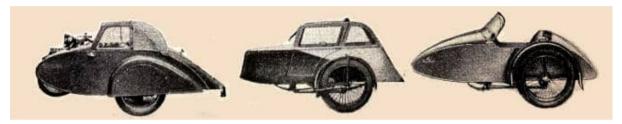
similar lints to that of last year. There is the 633cc side-valve Big Four, which makes a particularly lusty sidecar machine, single and twin-port ohv singles of 348cc, two similar ohv jobs in the 490cc Model 18 and the 596cc Model 19, a cradle-frame 490cc ohv machine in the ES2, two ohc standard machines—the 348cc CJ and the 490cc CS1—and the famous super-sports ohc Internationals, 348 and 490cc. The well-proved spring frame ran be fitted to the Internationals and the ES2, the other cradle-frame machine, at an additional cost of only £7 10s. OEC: Rear-wheel springing is standard throughout the OEC range. Three models are available: the 350cc ohv Cadet, the 500cc Commander and the 500cc Commodore. All have single-cylinder Matchless-AJS engines with fully enclosed valve gear and an extremely smart appearance. Rear springing is of the plunger type with friction shock absorbers. The Commodore has a hairpin-valve-spring, high-performance engine and a most interesting braking system with two Girling brakes per wheel. OK SUPREME: As usual, the makers of the OK Supreme list a wide variety of machines. An innovation for 1940 is a most attractive 750cc side-valve with a JAP-engine. The programme starts with the Flying Cloud range. which consists of a 246cc side-valve and a trio of ohvs of similar size. Next come four 350s, one a sidecar machine. two ohv sports models in the 347 and 497cc Gladiators, and lastly a standard-type 497cc ohv Dominion and a very 'hot' racing 350, the 348cc 'Alcohol Special'. PANTHER: Designed by Mr Granville Bradshaw, the new Panther spring frame consists of four sets of leaf springs, two on each side of the rear wheel. This new frame is available on three models: a new 598cc side-valve, and 498 and 598cc ohv models. For 1940 all models are on orthodox lines with normal types of frame, and in the case of the new models, vertical engines." RAYNAL: Two autocycles form the motor cycle side of the programme of the Raynal concern. The power unit is the well-known Villiers Junior. **ROYAL ENFIELD:** While the range has been reduced to seven models, there are machines for almost every conceivable purpose. At the lower end of the capacity scales comes the recently introduced and very economical 125cc two-stroke. It is a true lightweight, for it weighs only some 120lb. Next come a 248cc side-valve that is a glutton for hard work—a member of The Motor Cycle staff has used one of these models for two strenuous Continental tours—and three well-mannered ohv singles of 248, 346 and 499c.c. The programme is completed by a 570cc. side-valve which is sold as a completely equipped sidecar outfit, and a 1,140cc twin-cylinder sidevalve which is used in a number of parts of the globe as a



"250cc Super-Sports Wolf." (Right) 1,100cc sv twin ZENITH."

police sidecar outfit. SCOTT: Few, if any, motor cycles turn their devotees into such enthusiasts as this famous water-cooled twin-cylinder two-stroke. For 1940 the machines listed are all of 596cc—two Flying Squirrels, one with a rigid frame and the other with plunger-type rear springing, and two Club-man's Specials with the same difference. The latter are, of course, the super-sports editions, for which the makers claim a. maximum. speed of 85-90mph as against 75-80 for the Flying Squirrels. Among the features of the Clubman's Special are a large-bore racing-type Amal carburettor, a small front tyre of ribbed pattern, and extra heavy central-spring front forks. A threespeed gear box is fitted. This last has a remarkably quick foot gear-change and ratios that give the impression of showing up the famous twin two-stroke at its very best—and an enthralling best, too. SOS: The makers of the SOS are specialists. All 12 models in the range are single-cylinder two-strokes of either 249 or 346cc. Some are air-cooled, but the majority, a point unique among present-day two-stroke singles, have water cooling. Outstanding among the latest machines is the low-priced 346cc water-cooled Magnetic. This is a coil-ignition machine with an SOS-Villiers engine, a three-speed gear box with hand or foot operation at option. SUNBEAM: 'Designed to an ideal' is a phrase that can aptly be applied to the Sunbeam range. One side-valve (of 598cc) and nine ohv models are listed. These last, which are of 246, 397, 498 and 598cc, are of highcamshaft design with the camshaft and Magdyno driven by single Weller-tensioned chain. The result of this s and the care taken in the design and manufacture of the whole is a series of power units remarkable for their silence and smooth-running. Effective plunger-type suspension is fitted to three ohv machines, 347, 498 and 598cc. TRIUMPH: The high-spot in the Triumph Programme is undoubtedly the Speed Twin in its new form. In appearance there is little obvious change, barring the adoption of four-gallon tank with the kneegrips recessed so that the rear end is not uncomfortably wide. In behaviour, however, there is a vast difference. The cause is the new steeringhead angle and fork geometry—standard on the Tiger 100 twin introduced last year and the new forks which have tension-spring dampers and a soft action that ensures admirable road-holding. Similar forts are fitted to the high-compression and even faster Tiger 100. All machines in the range, side-valve and ohv, have received very special attention in the matter of fuel economy. **VELOCETTE:** Except for the temporary deletion of the famous racing model, the KTT, the Velocette programme is as large as ever.

These- well-designed, magnificently made machines comprise the four-speed footchange 250cc GTP two-stroke, 248, 349 and 495cc high-camshaft ohv models and two ohc mounts, the KTS and KSS with cylinder heads of light alloy with, inserted valve seats. An unusual and important point in the design of these famous black-and-gold machines is the arrangement of the primary drive inside the secondary which results in exceptional crankshaft rigidity. All models are sold completely equipped, the prices including even pillion seat and pillion footrests. **VINCENT-HRD:** Spring frames of pivotaction type, two brakes per wheel and 'semi-ohv'—high-camshaft—engines are standard throughout the Vincent-HRD range, a trio of machines famed for their steering, road-holding and safe speed. As a model the Rapide, the husky 998cc V-twin which has often proved itself capable of lapping Brooklands at around 110mph in the hands of private owners, is perhaps the most outstanding. While



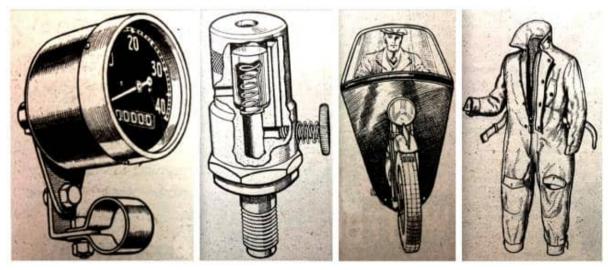
L-R: "WATSONIAN Super Saloon de Luxe. SANDUM Regal two-seater. swallow Shelsley Sports."

mighty in performance the machine is easy to handle both at speed and on corners. Tho two singles, the Meteor and the Comet, are similar except that the latter is a supersports job. Each machine has wheels that can be removed in under a minute—The Motor Cycle has watched it being done in 45 seconds. WOLF: Villiers-engined lightweights of 125, 147, 148 and 249cc constitute the Wolf programme. The 125 is of the engine-gear unit type and is a simple, well-made machine with pressed-steel front forks, twin exhaust system and legshields. A somewhat similar machine is the 147cc WA4, which costs £27 11s 3d, as against £27 for the WA10. The gear box is, however, separate and has two speeds. The 148cc models have the long-stroke Villiers engine and three-speed gear boxes and are on less simple lines. The higher-priced model has a plated tank and plated wheel rims. A loop frame is fitted to the two 250cc machines, which are excellent examples of first-class lightweight two-strokes. The difference in the prices is accounted for by the cheaper model having smaller tyres, petrol lubrication, pressed-steel forks, black silencers, non-valanced mudguards and a simpler type of single toolbag. **ZENITH:** Five JAP-engined machines comprise the Zenith list for 1940. Two have ohv engines—the 250 and 500cc models—and the remainder are side-valves of 600, 750 and 1,100cc. The two last are, of course, V-twins. Design is on sound, straightforward lines with four-speed, foot change gear boxes, single-spring front forks and all the fittings of the best." The Sidecar Buyers' Guide listed Bowser, Dornas, Garrard, Great Portland, London, Pride and Clarke, Sandum and Watsonian.





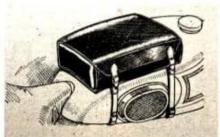
"SINCE THEY ARE 'necessaries', perhaps the most important of all the latest fittings are head-lamp cowls. Lucas, Feridax, Middlesex, Dymlite and Hughes Motor Fitments all offer first-class examples of the official type. For auto-cycles there are special miniatures offered by Meeten's. Autocycles are fast being catered for in a number of directions. S Smith and Sons have a 40mph speedometer at only 19s 6d; James Grose, an expanding vulcanised-fibre valise for carrier attachment; Harwils, new brake hubs, one with a special no-pawls, non-clicking free-wheel; and 'Bemo' inexpensive cycle-type bulb horns. Among the motor cycle clothing firms the chief products are the well-proved favourites such as the Stormgard, the Beacon suits and Beacon waterproof 'Thornproof' mitts, Brooks and HMF handlebar muffs, the Belstaff range of coats and those hard-wearing S Lewis hood-twill coats. Pride and Clarke have an exceptionally wide

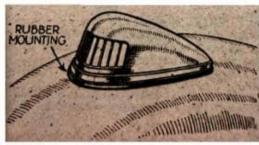


L-R: "A Smith's speedometer suitable for autocycles (19s 6d, S. Smith and Sons)." "The Duo Bi-pass economiser incorporates a suction-operated piston valve. A knurled screw

adjusts the air supply at low throttle openings (12s 6d, Clarence R Foster)." "Bowser motor cycle screen-cum-shield (35s, Edward Bowser)." "Inexpensive lightweight flying suit (35s, Marble Arch Motor Supplies)."

range of gloves as well as other riding kit, and Marble Arch Supplies an interesting new light-weight flying suit, waterproof and selling at the remarkably low price of 35s. For waterproofing leather gauntlets and the like there is JB Brooks' 'Proofide'. Handlebar screens of particularly sound construction are offered by Beta, Wilbeck and Bowser. For engines there is little new. KLGs, however, have reintroduced their KS5 mica-insulated 18mm plug in a new and even better form at 6s, Lodge's supply very efficient waterproof plug covers as well as, of course, their world-famed plugs, and John Bull produce inexpensive rubber plug covers. An interesting Feridax innovation for motor cycle use is the Cox petrol economiser which embraces a cone-shaped atomising gauze and fits at the carburettor flange. Bowdens and James Grose offer handlebar-controlled extra-air valves, and there is the novel automatic Duo Bi-pass extra-air device made by Clarence R Foster. Piston rings, which, in view of petrol rations, are more

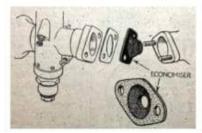


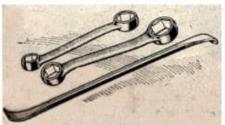




L-R: "Hutchinson wader bag (7s 6d, Pride and Clarke)." "Streamlined sidecar lamp (3s l1d, Pride and Clarke)." "A tooth-edged non-skid tyre—the new Dunlop Fort."

important than usual, are the Wellworthy 'Simplex' and other compression restoring rings, such as the Bricoflex. Tyre research and development, as Firestones remark, are continuous and the results reflected in the latest products. A new and most interesting tyre is the Dunlop 'Fort', with its rows of skid-preventing teeth at the sides of the outer studs; this tyre has a large tread area for long life and is well rounded for good steering. Avon tyres have a novel insurance against damage. Among tools there are Terry's gudgeon-pin removers and excellent ohv spring compressors which will safely exert a pressure of 2501b; also King Dick chrome-steel ring spanners, and a useful carbon scraper from Godfrey's. That ever-useful Bosco cylinder black can hardly change; the same applies to the Lewis replacement grips; nor is there any change in those already extremely easy-to-tune range of Amal carburettors, or in Burman and Albion gear boxes. Goggle design, however, includes a most interesting innovation in the form of a new Luxor (EB Meyrowitz) goggle, which has a magnificently wide vision and represents what is probably the most luxurious goggle ever produced."



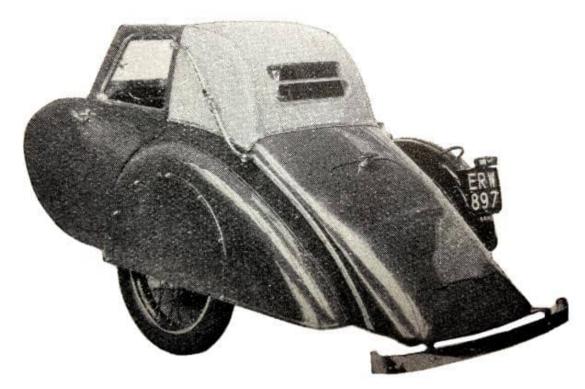




L-R: "Cox Atmos economiser (5s, Jas R Ferriday)." "King Dick chrome-steel ring spanners and a carbon scraper (Godfrey's)." "True luxury—the new wide-vision Luxor goggles (60s EB Meyrowitz)."

"IN SPITE OF the restrictions imposed by war, club life, on the sporting as well as the social side, is still very much alive...As was only to be expected, the outbreak of hostilities caused a certain amount of chaos in club organisation —many members were called to the Colours or took up Civil Defence duties, others were evacuated with their businesses, while over all hung the uncertainty about by the introduction of petrol rationing. Now the tide is on the turn; in all parts of the country clubs have mustered their forces to carry on the great game. The result is to be seen in the announcements of social events and of trials and scrambles—necessarily of a restricted nature—while later on (who knows?) there may even be miniature road or grass-track races, all affording that healthy recreation essential to tired workers. To outsiders the revival of club life in the present circumstances may seem little short of a miracle. Actually, it can be explained in a single word—enthusiasm. Enthusiasm has always been the life-blood of club life and motor cycle sport in general, and it will take something more than a war to destroy it."

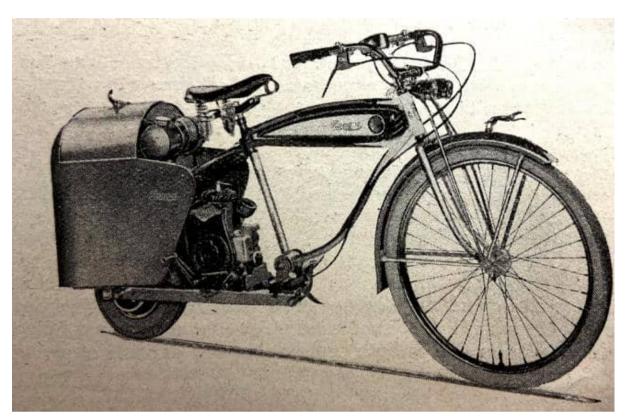
"A NEW SIDECAR has been produced by the famous Watsonian firm, and there is no dearth of ideas in this particular sphere. It is known as the Super Saloon de Luxe and is mounted on the flexible-wheel, G22 chassis. The body has graceful flowing lines, while the mudguard design and wheel housing add to the streamline appearance. In the sloping tail is a roomy locker fitted with a Yale lock. The upholstery is luxurious; there is an unusually deep seat, which will accommodate an adult and child, and a comfort able backrest. Pockets are provided on each side of the body and the sidecar can be supplied with speedometer and clock, the former driven from the sidecar wheel. Other 'luxury' features are a safety-glass screen which opens, a sliding off-side window, and grab-straps in the interior of the body. The front half of the roof is made to roll open if desired. The rear part of the head is fixed and dummy hoop-irons add a note of distinction. There is an interior light, a holding bar above the mahogany dash and glove box."



"Modernity is expressed in every line of the new Watsonian Super Saloon de Luxe."

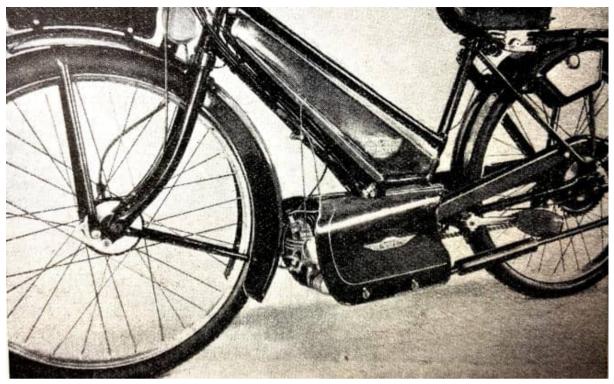
"MEMBERS OF THE FORCES desiring to use their motor cycles during the leave period are advised by the RAC to arrange for a friend or a member of their family to deal with the necessary details—licensing, insurance, petrol rations, etc—before the leave actually starts. Where this is found impossible, the RAC offers to attend to matters on the individual's behalf. Fuel that will allow a mileage of approximately 300 over and above that obtainable on the basic ration is now being granted those on leave from the British Expeditionary Force."

"MERELY CUT OFF the rear forks and rear stays just behind the seat pillar of the bicycle frame and attach the unit...' Thus runs the somewhat surprising instructions for fitting the Mead Ranger Power-Cycle, a new American-made unit for converting bicycles to autocycles. In fact, the instructions are probably simpler than they sound, for the complete unit, comprising a 1½hp four-stroke engine, countershaft, kick-starter, fuel tank, rear wheel, foot-rests, and luggage compartment, is carried in a strong sub-frame that is merely attached by U-bolts to the seat pillar of the bicycle at the top, and at the bottom is held by a single bolt that passes through the bottom bracket. The drive is by means of a rubber belt to a countershaft, thence by chain. to the rear wheel."



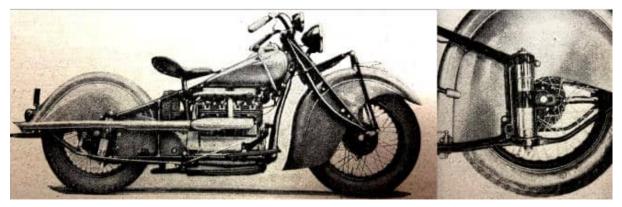
"A typical American bicycle adapted to take the Mead unit comprising engine, fuel tank, rear wheel, foot-rests and luggage compartment."

"A GLANCE AT THE LATEST James Auto Cycle is sufficient to show that big strides have been made as regards both appearance and utility. The machine has the new 98cc flattop piston Villiers engine and an improved carburettor, while the flywheel ignition and lighting system is more efficient than the type employed on the old engine. As before, the cast-aluminium box silencer is placed beneath the power unit, and an additional tubular silencer is incorporated in the long tail pipe. Considerable attention has been paid to the riding position and to the comfort of the rider generally. For instance, the Terry saddle is mounted slightly lower than previously, and the handlebars are rubbermounted. Clutch and brake control levers are of the 'outside' type, which give better and more positive control than the usual inverted leavers. The wheels have chromiumplated rims with black centres, and both brakes are of the internal-expanding type. The usual James mudguards with a box-section central rib are fitted; the front guard is well valanced and both guards are wider. Further protection is provided by means of metal chain guards. A handsome petrol tank having a capacity of 11 pints is mounted between the two down-tubes of the sturdy frame. Engine shields, besides being useful, greatly enhance the appearance of the machine. These shields do not interfere with the cooling of the engine nor with the accessibility; each is held by spring clips and thumb-nuts and may be removed almost instantly; a carrier is included and there is a nicely shaped metal tool-box on the left side of the rear wheel. Both tyres measure 26x2in, and speedometer and electric lighting are standard items of the equipment."



"The popular James Auto Cycle has been improved in both appearance and utility. For 1940 it has a flat-top piston Villiers engine."

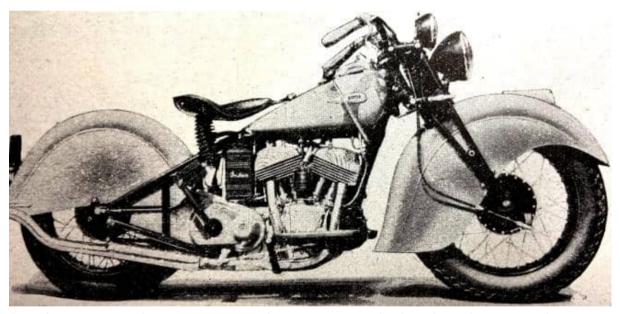
"SPRING FRAMES HAVE spread to America. Two of the larger models is the Indian range for 1940 have rear springing of the plunger type. Another direction in which British motor cycle designers may take a bow is that English-type steering is incorporated on the two smaller models. On the other hand, the Americans have introduced a very interesting feature—the partial enclosure of both wheels. The Indian 1940 programme consists of four models. The smallest as regards capacity is the 499cc side-valve twin; the engine alone has an appearance which immediately calls to mind the many Indian Scouts on the roads of this country a number of years ago; perhaps, however, it is merely the layout of the head finning which provides this link with the past. Next there is the 744cc side-valve twin—a sportsman's mount—and this is followed by the 1,206cc side-valve big twin, which performs equally well as a solo or sidecar outfit. Finally the range is' completed by the straight four-cylinder model of



"The new-feature mudguards are shown to great advantage on this latest version of the

Indian Four." (Right) "The Indian plunger-type rear springing incorporates coil springs and pressure lubricators top and bottom."

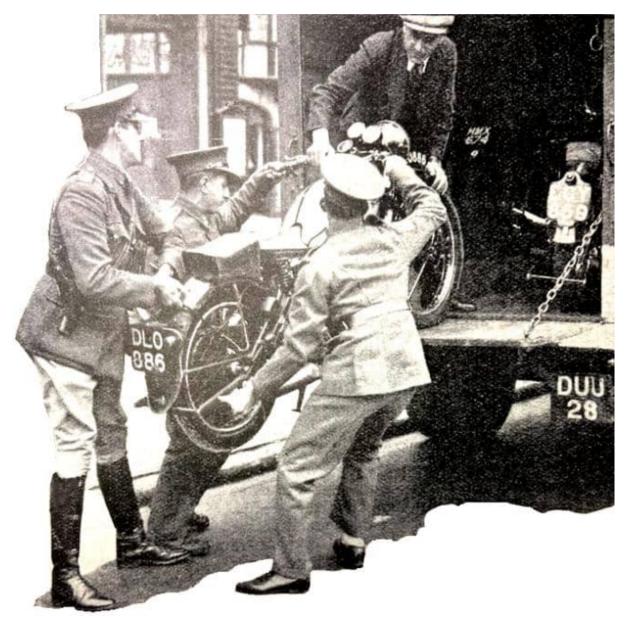
1,265cc. A feature which enhances all the new Indians is the new mudguarding arrangement. So deeply valanced are the new guards ('fenders' they call them in the USA) that nearly half the front wheel and rather more than half the rear wheel is enclosed. The influence of car streamlining is evident, but the innovation has its practical as well as its ornamental aspects. The degree of protection afforded the rider when the machine is ridden on drenched roads will obviously be high. From this it follows that the machine as a whole will be better protected, hence cleaning will be easier and the need for cleaning should arise less frequently. A sidecar is available which carries out the same motif. Rear-wheel springing is standardised on the Indian Four and 1,206cc twin-cylinder models. Modifications to give deeper cylinder and head finning on the 1,206cc and 744cc twins have resulted in an enhanced appearance and, it is claimed, 50% cooler running. All three twin-cylinder models have detachable aluminium heads. The frame of the largest twin has been completely redesigned to accommodate the rear springing, to give full effect to a seat pillar-sprung saddle, and to provide a new angle for the steering head; the famous Indian trailing-link leaf-spring front forks are retained on this and the four-



"English-type steering and deeper cylinder and head finning give this 744cc twin an almost British appearance."

cylinder models. But for its American-type handlebars, distinctive mudguards and controls, the 744cc model would pass anywhere for a British big-twin. The girder forks are of conventional layout and have a central compression spring and adjustable shock dampers; immediately above the steering head is a steering damper control. In appearance, the baby of the Indian range—if the 499cc twin may be styled thus—has been greatly improved by a large-capacity tank, British-type forks and the new-style

mudguards. The engine, too, has undergone detail improvements, not the least of which is roller main bearings—a feature now incorporated on all the twin engines. Rear stands have been discarded in favour of centrally placed stands, and all but the smallest model are fitted in addition with what are termed 'jiffy stands'; in this country we call them prop stands. The magneto equipment on all models has been improved by fitting units which deliver a spark of greater intensity at kick-over engine speeds. All the lighting circuits incorporate a dust- and water-proof fuse block, complete with spare fuse. Another interesting feature is that the batteries are provided with a device whereby over-filling when topping-up is rendered impossible."



"MANY DEALERS have supplied the Army with machines; here is a collecting van with an officer giving a hand with the loading."

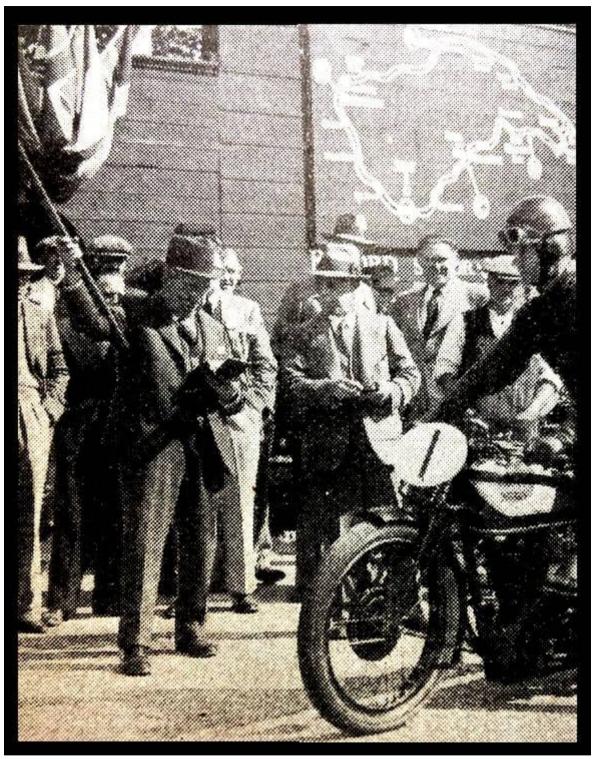
"THE LETTER FROM 'Don R' regarding despatch riders' clothing prompts me to write of the experiences of the DRs in the BEF in the 1914-18 'do'. Most drafts going overseas

were issued with the short civilian type of jacket and leg overalls, which were good enough for summer wear but useless in heavy rain or for the extreme wintry conditions of N France and Belgium. By the end of 1916, Signal DRs were receiving the Government issue of overalls made by various mackintosh firms to a specification as follows:(1) Poncho-type fine-twill and rubber jacket, reaching to the thighs, with wind cuffs and, most important of all, lined inside with a good tweed cloth. Good, strong storm-collar. (2) Trouser-type leggings which completely encased the seat and stomach (proof against wet saddle effects). These were also cloth-lined down to the knees, and had lever-operated snap-fasteners on the legs. These overalls (valued for issue, I understood, at £4 4s) were warm and' would easily stand over four hours of solid rain and wind. The one objection was the difficulty of taking off (over one's head) the poncho jacket when wet, but this was a detail to the advantage of the unbroken poncho front. For headgear, most DRs preferred an officer's cap with the wire removed. My last cap cost 17s. 6d., lasted two years, was waterproof. comfortable, and had a prominent unbreakable peak as protection for the eyes. A fisherman's oilskin hat was excellent for rain or now. Footgear was various. Wellingtons and waders were, handy for slipping on and slushing round the billet, but I think most DRs preferred leather (ordinary hoots or cavalry-type) as gripping better on slimy pavé. How many old DRs recall the shoemaker at Abbeville Depot who converted issue leggings and boots into eyeletted top boots. for three to five francs? Gauntlet gloves were showy but of little use in heavy rain. Handlebar muffs were ugly but extremely comfortable in really bad weather (with light leather gloves) and became an issue by winter 1917. A copper wire threaded through the outside of each muff prevented sagging and facilitated a quick grip. Almost equal to muffs were a pair of RASC gloves, thumb 'solo' and fingers together, which were warm and stormproof. Rubber bands round the wrist kept the open ends tight A soft scarf and fairly tight belt fitted one for hail, rain, wind or snow, and the best eye protection from the latter were the slotted metal goggles so rarely used in England. Times change, but the old DR spirit ever prevails, and one would wish the 1939 DRs the, beat of luck and 'good riding'!

HF Birt, Ex-Cpl Sigs RE; DR, London Civil Defence, London, SW9."

"SO DEAR OLD 'EBBY' has received the chequered flag. Never again shall we see him on the line at Brooklands with his little gold-knobbed Union Jack upraised in his right hand and his precious watches in their case in his left hand. No more will racing men have 'Ebby' to blame (or bless) for their handicaps. Neither Brooklands nor the Isle of Man will be quite the same. Mr AV Ebblewhite, most famous of all international timekeepers, passed away early last week. He was taken ill in a train when travelling to London from Snaresbrook, where he had recently made his home, and died suddenly. 'Ebby', in the eyes of thousands of motor cyclists, had long become part of the great game. He grew older, naturally, but it was still the same old 'Ebby', still the great enthusiast. The British Motor Cycle Racing Club of which he was chairman, was his especial pet. He loved

being with the boys and took immense pride in their feats. Every year he would analyse Britain's position in the world's record lists, and egg on riders and manufacturers. His joy when Britain —his Brooklands boys—gained some 90% of all the worth-while records was complete. Soon afterwards, however, manufacturers and accessory firms began to lose interest in record-breaking. 'Ebby' strove his utmost to get them to continue their support, and there is no doubt that his efforts did much to uphold the prestige of the British motor cycle, 'Ebby' was a most interesting companion. Start him talking about his experiences and there was a most entertaining evening in store...Many have good reason to be thankful to 'Ebby'. He was always ready with advice, help and information. I owe him a special debt, quite apart from the way he would let me worry him as a pressman out for details of speeds and the like. It was when I was on my first job of work in connection with the motor cycle world —before I joined *The Motor Cycle*. Suddenly 'Ebby', whom I had never met, entered my office and said: 'Colonel wishes to see you.' I realised who 'Ebby' was, because I had seen him in the distance, but I was a complete stranger to him. The same applied to the Colonel. It turned out that the two of them had learnt that I was later to be deputed to carry out a rather ticklish job of work—one in which to be forewarned was to be forearmed. They explained the task and pointed out the various nooses that might lie in my path. Without this information I should undoubtedly have landed into trouble, and perhaps have jeopardised any future I might have. 'Ebby' and the Colonel did this for someone they did not know—had never met. Thank you, 'Ebby'."—Torrens.



"Ebby', mahogany case of watches in one hand and flag in the other, acting as starter and chief timekeeper in the TT. Beside him is Mr George Reynolds, and on the line the late Jimmy Guthrie." The first motor cycle record Ebby timed was in 1900 — Harry Martin on the old Canning Town track.

"GOOD-BYE, EBBY! When competition work restarts after the war, many familiar figures will perforce be missing, but no gap will be so obvious or more felt than that left by the death of the world's premier timekeeper, affectionately known wherever speed is

practised as 'Ebby'. His short, stocky little figure, armed with pipe, flag and twin watches in mahogany case, was part of the atmosphere at races in many lands. Shrewd and imperturbable, a man of few words and encyclopædic knowledge, there was nobody and nothing in the world of racing that he did not know, as many an artful stunt merchant who tried to wangle an excessive handicap at Brooklands discovered to his cost. It is curious that although he made his living by selling musical instruments, he played none of them; and although his sideline was timing cars and motor cycles and planes, he never held a driving licence and could not fly. Knowledgeable, friendly, reliable and expert, he was an integral part of that revolution in human life accomplished the advent of the internal-combustion engine. It is good to know that his end was painless; he was just lighting his pipe in a railway carriage en route, to the City when he fell back and breathed his last."—Ixion

"IT WAS A BRAVE DECISION on the part of the Birmingham MCC to hold the British Experts' Trial. This event, of which the present occasion was the 11th, is now looked upon by sporting motor cyclists as the cream of the one-day trials. All know and realise that wartime *is* wartime; that such periods as the one through which we are passing demand of the nation more than it usually gives, and divert it from its usual pursuits. It is not, however, in the nature of British folk to surrender their liberty of action unless it cannot be avoided. Tradition counts more than the casual observer may realise. It must not, therefore, be thought that this year's British Experts' Trial was run without regard for the national emergency, without effort and without considerable sacrifice by all concerned. That the entry would be depleted was a foregone conclusion; that to run the event on the possible entries would not show a profit was another foregone conclusion; that the existing restrictions would make it hard for anyone to compete was yet a third; that the organisation, route-finding and marshalling were going to be almost insuperable difficulties were facts that were fully realised beforehand; but that the trial should be held in spite of everything was a



VN Brittain (Norton) on the steep and narrow track up Whitehall. He tied with J Williams for the solo premier award." (Right) "DK Mansell (Norton sc) and his passenger look grimly determined as they climb More Folly."

dominating thought which ultimately triumphed. The 11th British Experts' Trial was held; it received a most excellent backing from eligible competitors; and it was marshalled by real enthusiasts who came from all parts of the country to ensure the success of the event. The will to win was there, just as it is in the larger issue so prominent at the present time. At this juncture it may be well to record the deep appreciation. of the Birmingham Club for the response that was forthcoming from all those who were in a position to help. Observers were urgently needed, and they came along in a spirit of friendliness which was almost beyond expectation. Without their voluntary efforts the trial could not have been run. It will be obvious that there had to be changes, but every effort was made to keep the event as nearly as possible in line with its predecessors. A short course was used, covered three times, and although several old favourites were omitted, those hills that were used were well worthy of the prowess of the men who tackled them. One would have said, looking at the route-card, that the hills themselves were capable of finding a winner. Actually, this was not the case. The special tests did not decide matters either, for two people tied for first place on observation, in special tests and on time, while one other who was ahead on observation dropped marks on time. Even so, in the solo class there was only one mark between the first three men,



"J Williams (Norton) rounding the ticklish bend on More Folly. Note the angle of the front wheel." (Right) "Allan Jefferies (Triumph), runner-up for the Skefko Gold Cup—the solo premier award—after making a good climb of muddy Ashmeads."

while among the sidecars four marks only separated the two finishers. By losing two marks on time that great Yorkshireman Allan Jefferies (Triumph) relinquished his right to hold the solo trophy for the second year in succession. The Skefko Gold Cup was awarded to Vic Brittain (Norton) and Jack Williams (Norton), who each finished with a loss of 20 marks and tied on the stop-and-go test. It is remarkable that this should happen, but it does show how exceedingly keen was the competition. The Palmer Challenge Trophy was won once again by that unassuming rider Harold Flook (Norton sc). He was followed (four marks later) by Stuart Waycott (Velocette sc). Owing to an unfortunate mechanical mishap, Dennis Mansell (Norton sc), the only other sidecar competitor, was compelled to retire when in a winning position. There were only two hills of main importance, Henwood and Ashmeads. Henwood was climbed cleanly by only two people—Vic Brittain and George Rowley (AJS). Probably the next best at this point was the third-lap effort of FM Rist (BSA), who had only one touch. The hill was deep in mud and leaf-mould, which concealed many loose boulders. It was a difficult climb, and the hill altered as the rocks were disturbed, so that successful tactics on one lap did not work well on the next. The climb made by Vic Brittain (Norton) on his first lap was truly wonderful; Jack Williams (Norton) had bad luck in being diverted up the bank, and Dennis Mansell (Norton sc) was particularly unfortunate to have his gear jump into neutral in the middle of



Flook (Norton sc), winner of the Palmer Cup for the best sidecar performance, is helped by his passenger on the hairpin bend on More Folly."

a perfect effort. Harold Flook (Norton sc) stopped in the first section and then made an admirable climb of the complete hill. No rider was clean on the second circuit, but George Rowley put himself among the stars on the third lap. On Ashmeads, honours were shared by a number of people...Jefferies was again 'clean' on the third climb—in company with J White (Ariel). Waycott failed twice on the third lap, but Flook, by pushing through the fourth section, saved a mark or two after having failed earlier. Soon after noon this trial of the experts came to an end. It started and finished at the Amberley Ridge Hotel, which proved an excellent substitute for The Bear. Many familiar faces were absent, but many were present. The Emergency Committee of the ACU was there in full force, and most of the old 'camp followers' turned up, although transport was at a premium. All things considered, therefore, the trial was very well worth while. **RESULTS.** Skefko Gold Cup (best solo): VN Brittain (Norton) and J Williams (Norton) tied; marks lost, 20. Runner-up: A Jefferies (Triumph), 21. Palmer Challenge Trophy (best sidecar) HJ. Flook (Norton sc), 39. Runner-up: WS Waycott (Velocette sc),

43. Finishers: AC Doyle (BSA), GE Rowley (AJS), GEH. Godber-Ford (Sunbeam), GF Povey (BSA), LG Holdsworth (Royal Enfield), FM Rist (BSA), WJ Stocker (Ariel), E Usher (AJS), J White (Ariel), JE Breffitt (Norton), JJ Booker (Royal Enfield), WA West (Ariel), PG Handford (BSA), EO Blacknell (Coventry Eagle), WS Waycott (Velocette sc)."

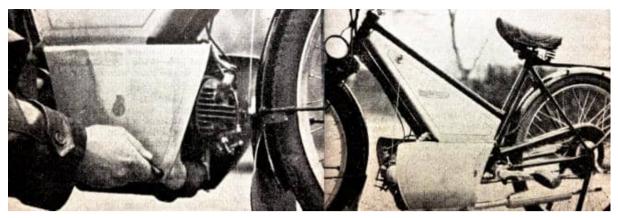
"UNTIL LAST WEEK, when I tried the new Francis-Barnett Powerbike, I had rather looked upon autocycles as runabouts—excellent machines for shopping and for using as transport to and from one's work, but of limited value in other respects. The latest Powerbike, with the new Villiers flat-topped piston engine, has changed my views. The very first run on the machine, short though it was, showed that here was a fresh conception of autocycling. It was not that the machine was noticeably faster than previous models I have ridden, or merely that the engine was more tractable and smoother. Both these latter characteristics were noted, but, above all, there was the additional power—the way the engine disregarded the headwind that was blowing and the various up-grades that have tended to worry its predecessors. It was obvious almost immediately that, except for testing fuel consumption, average speed and the comfort and general handiness of the machine, keeping to main roads, at all events in the south, was not the way to find out the new Powerbike's true capabilities. The thing to do, it seemed, was to take the machine out on a tour of the South Downs with gradients of 1 in 7 and even steeper—the equivalent of a Sunday afternoon ramble in fairly difficult country. So last Saturday off I set for Leatherhead and that stretch of Downs that runs from Reigate to Guildford. Not being in these days a capable cyclist, or, perhaps, because previous experience with autocycles has taught me its ease and simplicity, I started the engine by pushing the machine with the compression release raised. When, after two or three yards, the engine fired, I grasped the clutch lever, let the engine rev for thirty seconds or so and then set off, giving a turn or two to the pedals and at the same time opening the throttle and letting in the clutch. Later I was to find that this



"Torrens with the Powerbike on Box Hill."

seemed to be the method of starting, since pedalling and then letting in the clutch with this lusty little engine's compression against you means fairly hard work. Within 50 yards of starting from rest it was possible to push the strangler knob downwards; the engine proceeded to fire normally. This is an important point: the machine, with the new. engine might (as it will be seen it does) cover a phenomenal number of miles on a gallon of 'pool' petrol but it immediately settles down to its even purr and if, as in my case, there is a hill in front of you that makes cyclists pant and a few walk, it takes it in its stride. The Powerbike breasted the hill at a full 18mph. Later I tried it for even running at various speeds. At anything from 10mph to its maximum of around 30mph the machine ran perfectly evenly. There was no four-stroking or other misfiring. Even when the machine was running fast downhill there was even firing. This, in itself, to judge from my previous experience, marks a big advance; the new engine two-strokes as well as any two-stroke I have ever handled. The carburation is better than on previous models I have ridden. The machine accelerates evenly and smoothly from a corner—no break in the hum from the exhaust and no sneezes or pauses from the engine as the throttle lever is opened. At Leatherhead the traffic lights were against me, and it was necessary to restart on a gradient of perhaps 1 in 8. Opening the throttle at the same time as the clutch was let in, plus about three twirls of the pedals, was enough to conquer the decidedly adverse conditions. Then to Box Hill at a speed which, except for one roundabout, never dropped below 18mph. The Box Hill zigzag is known to tens of thousands, perhaps to millions. It leads to one of the most glorious views to be found anywhere within close reach of London. The hill is long, and the gradient, I suppose, about 1 in 8 at the steepest. It is a hill that caused me surprise when some years ago I saw that in a test by The Autocar it had been climbed by a car in top gear. For myself, I thought it would be a pretty good test of a 100cc single-geared machine with just on 15

stone in the saddle. Eight stone, that would be different. I think the Powerbike was brand new. At all events It seemed to run more smoothly and even better as the morning passed. Anyhow, the Box Hill zigzag was no test, for the machine climbed it at 18mph or more, except for the necessary slowing down at the hairpin bends, and after each hairpin it accelerated away without any pedalling or use of the clutch. As many know, the road over the top of Box Hill leads to Pebblecombe, a hill that has notices at the top and bottom saving, 'Engage low gear!' And the gradient of this hill is at least 1 in 51/2 with a lengthy approach that grows progressively steeper. Not for one moment did I consider the ascent a reasonable test. I have, in years gone by, stopped on it with a 293cc machine fitted with a two-speed gear. However, the hill would provide a test of the brakes, and it would be interesting to see just how far up the gradient this rather amazing little machine would plod. Since Box Hill had been climbed, it was a question of dropping down Pebblecombe. The front brake alone held the Power-bike on the steepest part; the two brakes pulled the machine from 20mph to a rapid halt. Obviously, the brakes, without that useful additional brake, raising the compression release, were fully capable of anything. I turned round and tried the hill; not with the idea that the machine could possibly climb it, but in order to see just how far it would get. It pulled itself and my big weight right to the 1 in 6 gradient, and, if I had pedalled, might well have got us over the top. From this it seemed that Reigate Hill, a long 1 in 9 gradient on the London-Brighton road, would be easy—the machine breasted the climb at about 16mph. The next move was along the Downs to Box Hill and then Ranmore Common. On the approach to the latter there is Ranmore Common Hairpin Hill. This, like Pebblecombe, grows steadily steeper, and ends with a hairpin bend and a gradient of about 1 in 6. I expected to have to pedal, for the hill is one on which car clubs have held stop-and-restart tests. All that was necessary was fewer than a dozen twirls of the pedals, and those really light. So to White Downs, another trials hill—motor cycle trials this time, though of the 1921-23 era. Here, too, was a long hill, but with a 1 in 5½ gradient at the top, yet the Powerbike got within 20 yards of the summit, and it was merely a question of walking the rest of the way with the machine toddling alongside and the clutch half engaged. From this it was obvious that the machine would do most things—even climb young mountains if you were prepared to walk alongside. And any ordinary main-road climb, as was proved by the ascent to Newlands Corner, could be laughed aside.



"A clever trip advice is incorporated in the back-pedalling brake gear which enables the machine to be wheeled backwards and also means that the pedals can be used after the style of footrests." (Right) "The neat rattle-proof engine shields now have heatinsulated wing nuts."

The over-20mph ascent was made amid cheers from a convoy of mechanised troops parked at the roadside! The 60-mile trip, with all its ups and downs, was completed by an almost full-throttle trip home. No auto-cycle could have been driven much harder, yet under half a gallon of petroil had been used for the entire run. The exact consumption of petroil worked out at 123mpg and, since petrol and not oil is rationed, the true consumption was approximately 128mpg of petrol. On the following clay I carried out a proper test of fuel consumption. The machine was taken over a measured distance (my pet test route which includes ups and downs) at a speed of 20-34mph. Although there was a fair wind blowing the consumption of petrol was 152mpg of petroil, which means over 158 miles to the gallon of petrol. At the end of the 60 miles, thanks in part to the sprung front forks—those on the model tested really worked—I did not feel stiff. The comfortable cruising speed is anything from 10mph to the maximum of approximately 30mph. Up to about 34mph downhill—and because of the way the machine holds its 18-20mph on hills there is not the slightest difficulty in maintaining an average speed of 20mph on long runs. To criticise the machine submitted for test is next to impossible. Were I setting out on a 1,000-mile holiday tour I should much prefer a motor cycle type saddle to the more or less cycle type; starting, if one adopts the pedalling method as opposed to that outlined, requires a certain degree of effort; and the engine, to the experienced ear, has a slight amount of that rattle which is generally termed 'two-stroke rattle', though not to the extent that it is likely to worry anyone. Beyond this I cannot find a word to say. You will realise my feeling when I state that before the test was completed I suggested to a relation that she should get rid of her present model and buy this new one."—Torrens



"Members of the Wakefield and District Motor Sports Club who have formed a despatch riders' section of the, local ARP Service."

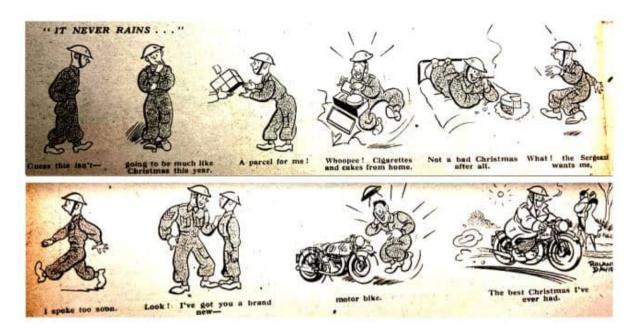
"THE HARRINGAY SPEEDWAY Supporters' Club recently sent a cheque for £219 to the Prince of Wales's General Hospital. In this case the money was raised by collections at speedway meetings. It was hoped to collect £500, but the war, of course, cut the season short."

"GIRL MAKES SOLDIERS SCOTT FANS' runs a heading in a daily newspaper. Well, some might argue that no such encouragement is necessary! But the news item that follows makes it clear that the Scott referred to is Sir Walter of that name."

"ACCORDING TO A REPORT, a bullet-proof pneumatic tyre of secret design is being used on many types of Army vehicle. Should a bullet penetrate the tyre, the interior construction will prevent the tyre from collapsing."

"SQUADRON-LEADER George C Pinkerton, RAF, well known to Scottish speedway fans for his skilful riding on the White City and Marine Gardens tracks, was one of the first two Auxiliary Air Force officers to be awarded the DFC."

"FRANK VAREY is once again back in his old surroundings at the Scott works, where he was a tester before he became a speedway star. Eric Langton, former captain of the Belle Vue team, is working in the experimental department of Hepworth and Grandage at Bradford."



"WHAT IS THE RECORD distance for a solo motor cyclist in dress clothes and boiled shirt travelling to a club dinner? In the past, wearing such a garb, I've done my 15 or so miles there and a similar distance back. The Editor one evening last week covered a there-and-back mileage of nearly 70. I don't suppose that this is a dress-clothes solo record, but I very much doubt whether many motor cyclists have gone 70 black-out miles so clad, all for a club dinner!"

IN THE UK TRADESMAN'S sidecar outfits were losing ground to vans but in the USA Harley Davidson and Indian were doing a steady trade in 750cc sv commercial trikes, respectively the Servicar and the Dispatch Tow.

HAVING WITHDRAWN FROM racing Norton was busy churning out the well-proven 500 sidevalve 16H for the military. To fight alongside the Nortons the War Department ordered its BSA equivalent, the M20. An order for 10,000 ohv 350cc BSA B29s was withdrawn because it made sense to standardise. B29s would go on to play a major role in the war, once the US noticed it had started, but they were made by Boeing rather than BSA. Beezas were good, but they couldn't carry atomic bombs to Japan.

THE MANUFACTURERS' TRADE association estimated that some 25,000 of Britain's 700,000 motorcyclists were female.

PEUGEOT'S P53 WAS A 100cc motorcycle complete with three-speed (hand-change) transmission. But some were produced with fixed footrests that looked like pedals. So these P53s could pass for 50cc pedal-assisted velomoteurs that were exempt from registration, roadtax, insurance and the need for a driving licence. How cheeky–how French–is that?

CIVIL SERVANTS ARE CREATURES of habit so following the RFC's adoption of P&M's during the Great War Panthers were acquired for the RAF. Compared with the likes of

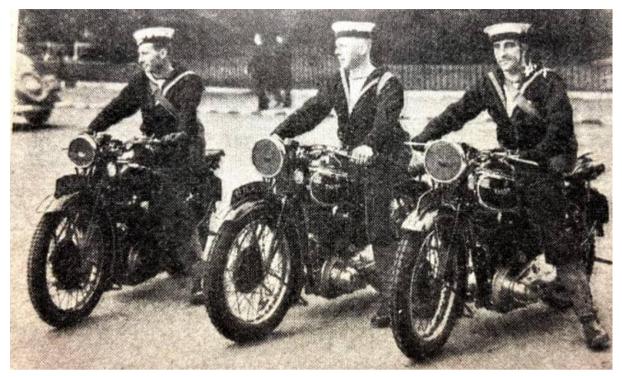
BSA, Norton, Matchless, Ariel, Triumph and Royal Enfield Panther was a small concern and was simply unable to meet demand. So the RAF got the same mixture of bikes as the Army, but most RAF bases had at least one or two Pussies tucked away.

BY YEAR'S END Japan had produced 3,000 motorcycles; Germany managed 500,000. Miyata opened a dealer in occuppied Shanghai.

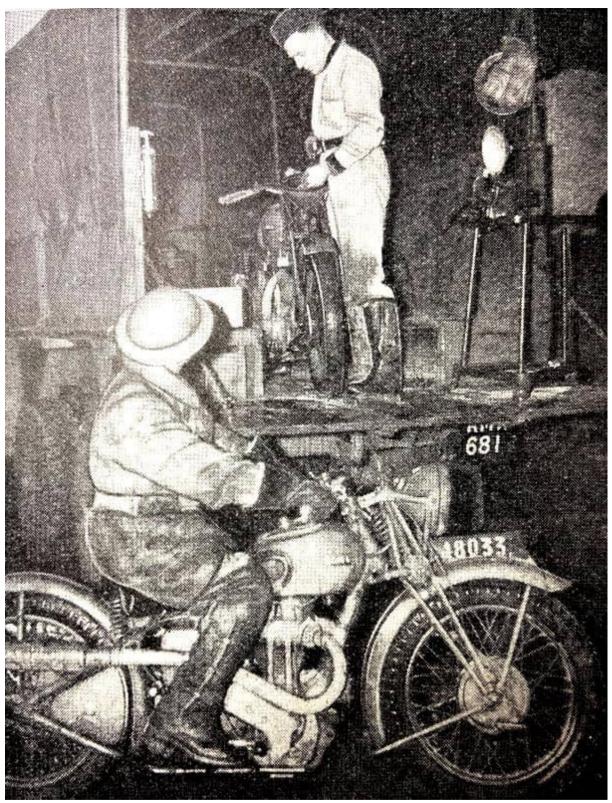
"A FACT THAT will not be lost upon readers is that the vast majority of motor cycles supplied to the Army have side-valve engines. The exceptions are a number of 350cc ohv singles and various machines which were in production at the start of the war and were 'impressed' by the Government. Whether the policy of concentrating almost entirely upon side-valves of 500cc continues remains to be seen, but we imagine that the reliability, simplicity, ease of servicing and slogging characteristics are likely to make this type of machine a favourite for some time to come. If this is so it is fairly obvious that the side-valve engine will receive fresh attention from the angle of design with the object of determining if and where it can be still further improved. Already we hear of intensive development work by a firm that has not made a special point of its side-valve design. It may well be that as a result of the war the side-valve machine will once again occupy what many consider to be its rightful place in the motor cycle world."



"A LINE of Ariel-mounted DRs who are undergoing training 'somewhere in the Midlands."



"THE NAVY ASHORE. Even the Navy has its official motor cycles—in this case a trio of Triumphs."



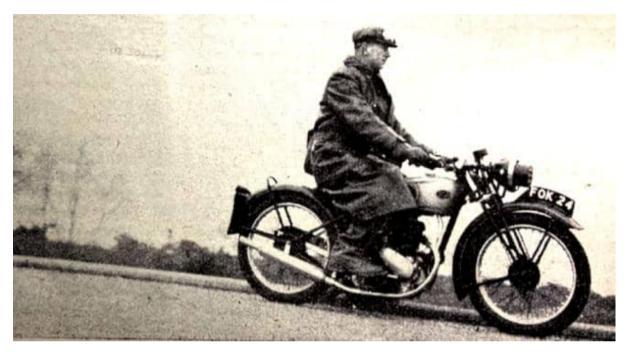
"DRs' FRIEND IN NEED. Besides being an expert mechanic, the man in charge of an Army travelling workshop is usually capable of handing out gentle and constructive criticism to any who are 'ham-fisted'."



"Mechanised units, cavalry and pack mules recently demonstrated their relative effectiveness over rough country. Here is a despatch rider pitted against cavalrymen over a steep and hills section of heathland."

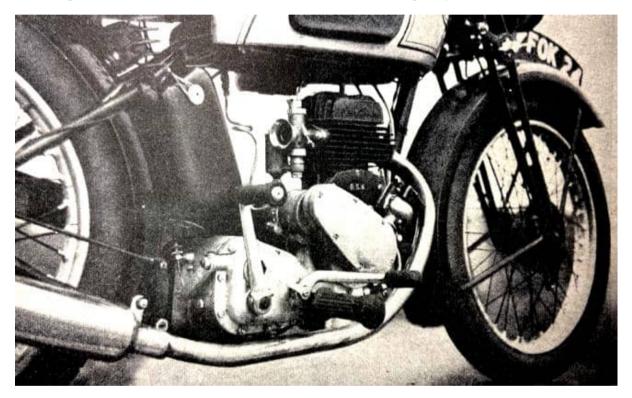
"IF THE 249cc SIDE-VALVE BSAs are all as good as the model submitted for test, then the C10 is a remarkable motor cycle. However, before I relate the work to which I put the machine and the way it performed there are one or two out-of-the-ordinary points in its specification to be touched upon, as, for instance, the ignition layout. Ignition is by a Lucas coil set with an automatic advance-and-retard mechanism driven from the timing gear by skew gearing. Thus there is no ignition control to be operated by the rider. The battery, incidentally, is of the rubber-cushioned type. The dynamo has, of course, voltage control. Another handlebar control has been eliminated by cutting out the air slide. That lever on the right handlebar which looks like an air control is a throttle lever. From 'shut' to 'flat out' requires a movement of about 60° so the lever is always within convenient thumb reach. On seeing that there was no air lever and no strangler on the air intake of the carburettor, I immediately had doubts—'Pool' petrol and the thermometer only a few degrees above freezing point...I flooded the carburettor—lustily. At about the third kick the engine responded with a single power stroke. I tried a different setting of the throttle lever, and the engine started the very next kick. As I was

to find, there was no effort necessary and no knack other than setting the throttle about a fifth open; and immediately the engine would pull away without any spitting-back, or flat-spots in the throttle range. With only three controls on the handlebars—the throttle, front-brake and the clutch—and merely the rear-brake pedal and the foot gear change in addition, the BSA beats even an autocycle in its small number of controls. All are well placed, and the riding position is outstandingly comfortable. The gear box provides three ratios: 6.6, 9.8 and 14.5 to 1. The foot control has a sensibly short movement. In the past I have criticised the foot changes of various BSAs on the score that



when new they have generally been so heavy as to be 'stamp changes'. With the C10 the change was delightfully light. The clutch, too, proved light, freed perfectly at all times and was satisfactorily smooth in taking up the drive. The gear change was easy and all gears noiseless. A novice might occasionally find that when changing from second to top he did not get into the latter gear. Throughout my test I never had difficulty, but at times I found myself automatically letting the clutch in a trifle in order to feed in the gear. Merely pressing down the lever with the clutch right out may result in the gear not going home. Neutral was reasonably easy to find; the BSA proved up to average in this respect. What was somewhat of a surprise was the performance of the machine on the open road. I began with a fast trip down the Portsmouth road. With the engine warm and the oil therefore 'moving', I opened up. The quiet, rather flat, woffly sound from the exhaust became a hum, and the speedometer needle, from its original '30' went to '45' and then to '50'. For approximately five miles on an undulating road the machine kept its speedometer needle at 50-55, except on one upgrade, when for a few seconds it dropped back to 48. I tried compressing my large, double-coated bulk; the needle on one very gentle downhill stretch hovered around the '60' mark—an honest 59. I said to myself, 'How honest?' Motor cycle speedometers as a whole are notable for their

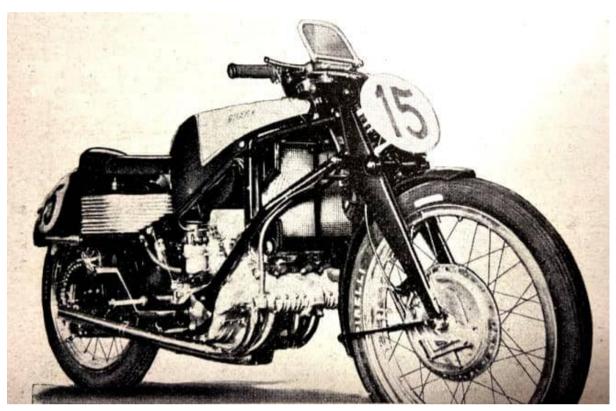
freedom from the sin of paying 'compliments', and BSAs, I happen to know, are specially keen that this is so. However, as a matter of interest, I got out my stop-watch. As I had estimated and expected, the speedometer was just about 'spot on'. The makers, by the way, claim 55mph and 100mpg for this model; the latter not, of course, at 50mph! For nearly 50 miles I kept the machine hard at it to see whether it was really foolproof—no tendency to dry-up or anything of that sort. There was one let-up, if it can be called such. I turned off to try a hill which has a measured gradient of 1 in 4½, a first-class surface and a right-angle corner at the bottom which prevents any rushing. This, I thought, would be a good test of brakes, and if the machine, besides climbing it, was capable of restarting at the very steepest part—well, it would have no difficulty in climbing Porlock or the like. First, the BSA was ridden straight up.



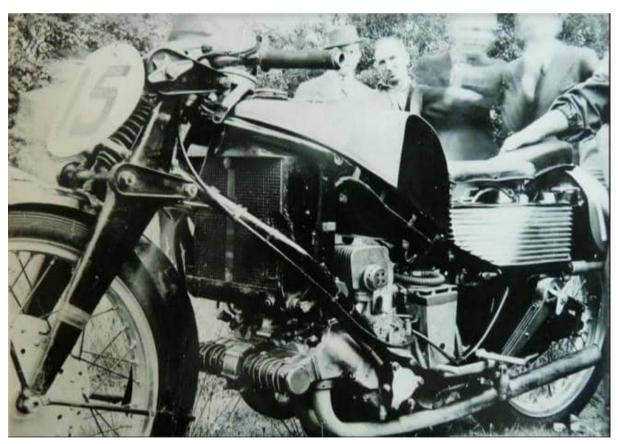
Easy! Then the brakes were tried. Either would stop the machine on the steepest stretch. Both were thoroughly efficient at all speeds and under all conditions. They were a little on the heavy side to operate, but, as the C10 is a machine that makes a big appeal to novices as well as to seasoned riders, this is probably a good point. Restarting on the gradient was accomplished all right. It was necessary to keep up the engine revs by slipping the clutch. Rightly or wrongly, the impression was gained that an experienced motor cyclist would probably have made a better restart if there had been a hand-operated ignition control. In certain circumstances slightly more ignition advance seemed desirable at speeds around 30mph in top and at equivalent speeds in the two lower gears. On the other hand, except that when accelerating bard the engine might give a single pink, the machine ran perfectly happily on 'Pool' petrol—in fact, it appeared to thrive on it—and picked up if slowed on a hill. During the fast touring which was now

again the order of the day three things were particularly noticeable. First, the excellent steering—positive and utterly safe. Secondly, the effortless bend swinging, even at speeds of 30mph. Thirdly, the exceptional degree of comfort afforded by the machine. The steering, incidentally, is equally good at a crawl in traffic. While the run continued and later consisted of mixed going in Hampshire there was little else to test except the fuel consumption. As a matter of interest, however, I took the engine up the scale in the two lower gears. A speed of 26mph was about the usable maximum in bottom (at this I changed up as the valves were starting to float) and approximately 38mph in second. Some 35mph in second is about all I myself would normally use. At all speeds the engine was delightfully free from vibration. I had to hunt hard throughout the scale to find anything in the nature of even a minor period. At this point in the present article it occurs to me that I have said nothing about mechanical noise, and that I have no mental notes on the subject. Obviously, therefore, the engine is quiet mechanically! While the engine gives an impression of great flexibility, owing no doubt to the automatic ignition control, I look upon about 15mph as the lowest true non-snatch speed. Above this a tester searching for 'points' can find an occasional rather indefinable 'tug' in the transmission. Fuel consumption at a speed of 30mph worked out at just under 90 miles to the gallon of 'Pool', this on my usual undulating test route, which I consider demonstrates what a machine will do in ordinary use—not what it could do under ideal, seldom obtained conditions. To sum up, the 250 cc side-valve B.S.A. submitted for test proved a delightful machine, first class for any novice, yet a really lively roadster capable of putting a full 40 miles into the hour."

IN SPITE OF THE unsettled conditions in Europe, Italian designers are going ahead with the production of racing machines, and several extremely interesting new models were exhibited at the recent Milan Show. Italy, incidentally, is already planning its 1940 national racing calendar. From the technician's point of view the. outstanding exhibits were the Bianchi, Benelli and Gilera supercharged four-cylinder machines. The Guzzi concern is still producing its successful 250cc 'blown' horizontal single, and is also trying out three-cylinder engines. During the 1939 racing season the supercharger has proved a decisive factor, so Italian designers, following the example of Gilera, have concentrated on the production of supercharged four-cylinder racers. Many difficulties had to be overcome in the design of these special engines, and now that they are built, problems in the matter of mounting, cooling, lubrication, valve timing and 'intercooling' have to be settled. Gilera, Benelli and Bianchi engines are all mounted transversely in the frame with the object



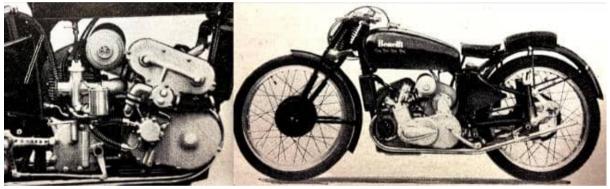
"The well-known 500cc four-cylinder Gilera is practically unchanged."



The four-pot Gilera was a formidable competitor.

of ensuring good steering. The first two are water-cooled, and are inclined slightly forward, while the air-cooled Bianchi is vertically mounted in order that the best

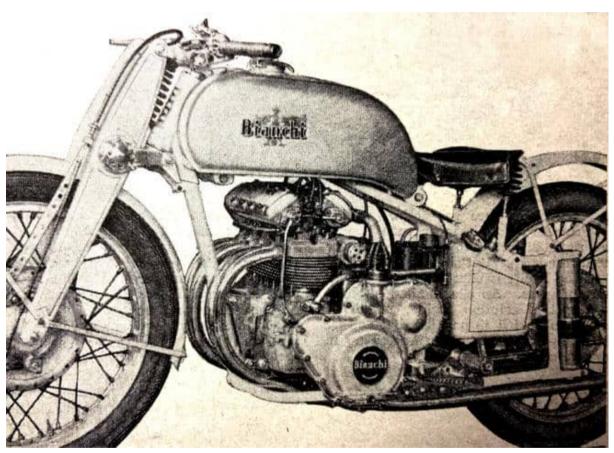
possible cooling draught shall be obtained. The 500cc four-cylinder Gilera, champion of Europe for 1939, has proved to be the fastest road-racing motor cycle in the world. This machine, which will remain practically unchanged for 1940, has a four-cylinder engine of 52mm bore and 58mm stroke (493cc). It is said to develop about 90bhp at 8.000rpm. The very rigid crankshaft, which is statically and dynamically balanced, runs on four bearings, and the two overhead camshafts are operated via a central gear drive. The valves are inclined at 90° in perfectly hemispherical combustion chambers. A small high-speed, Root's-type supercharger forces the mixture into the cylinders via a 'receiver' or 'balance chamber', the purpose of which is to keep induction-pipe pressure constant and cool the mixture before it is fed to the cylinders. This arrangement permits the unusually high (for a supercharged engine) compression ratio of 8 to 1 to be employed. The unit is mounted low in a light, duplex loop frame, and a small radiator is attached immediately above the cylinders. An oil tank is carried under the saddle. The well-known Gilera system of rear springing is, of course, a feature of this machine, which is notable for its low centre of gravity. The new 500cc Bianchi, though completed too late to compete in 1939 events, can claim to be one of the most highly developed supercharged units of the



"A close-up of the remarkable 250cc transverse four-cylinder Benelli engine. It is water-cooled and has a vane-type supercharger." (Right) "The new 250cc Benelli racer is extremely neat and compact. Features noticeable in this view are the forward-mounted radiator, the supercharger and inter-cooler, and the plunger-type rear springing."

present day. Its beautifully designed four-cylinder, air-cooled engine has exactly the same dimensions as the Gilera (52x58mm); it is said to develop 80bhp at 7,500rpm. The one-piece cylinder head casting is held by long bolts. Practically the whole of the unit—from cylinder head to sump—is finned externally: fins of close pitch and shallow depth. The valve gear is completely enclosed and the two camshafts are driven by a vertical shaft, the cams operating the valves directly. Carburation is by a Weber carburettor fitted on a Cozette-type rotary blower running at two-thirds engine speed; in this case the cooling of the mixture before reaching the engine is not obtained through a reservoir, but by using a large inlet manifold. Both clutch housing and gear box are cast en bloc with the crankcase, and the primary chain is completely enclosed. The oil tank, which is fitted low down behind the gear box, extends on each side of the rear wheel. The large-

capacity fuel tank is made of hand-beaten aluminium sheet. Another extremely interesting Italian racing machine is the new 249cc (42x45mm) four-cylinder water-cooled Benelli. Indeed, this wonderful little engine, with its four cylinders each of only 62cc capacity, represents a new step in motor cycle engineering. The aluminium cylinder block is cast in unit with the gear box and has hardened steel cylinder liners. The unit is mounted transversely with a 15° inclination in a normal TT frame. As is usual in Benelli design, a train of gears drives the two camshafts; these operate directly on the valves. Two valves per cylinder are employed and are inclined at 45° in hemispherical combustion chambers of only 42mm diameter; a 12mm sparking plug is placed vertically in the middle of each cylinder head. Supercharging is by means of a large vane-type blower that runs at half engine speed. This little unit is claimed to develop about 50-52bhp at 10,000rpm. Its future performance will be watched with interest."



"The 500cc vertical-four Bianchi has many outstanding features, including a one-piece cylinder head and twin overhead camshafts. A Cozette-type supercharger is employed."

"ONE DAY LAST WEEK the Editor received a cheery note from the Front from Lieut-Colonel CV Bennett, who was in charge of the Army teams that took part the International Six Days Trial. Colonel Bennett is, of course, an old hand at the trials game and a very experienced motor cyclist. My memory of him is largely on Burney machines in the Exeter Trials and other long-distance MCC events. In his note he mentions that his mount in France is a Tiger 100 Triumph. Apparently he is enjoying himself on it. He says

that a DR's life is very different from that of the war of 1914-18. The reasons? Machines are so much better and more reliable, and even a puncture is unheard of."

"Nitor' mentioned recently that one rider dusting up another on the open road was pretty well a thing of the past. Had he been on the Portsmouth road between Cobham and Ripley at about 2.30pm on December 17th, he would have seen a really good scrap—eight Army riders on side-valves, some of the men lying right down to it!"



This snapshot dates from 28 August, four days before Nazi Germany's invasion of Poland triggers Britain's declaration of war.

You'll find more photos from 1939 in the second melange page ('One melange good...' in the main menu). Nigh on 300 images of motor cycles, most from my amigo François, will appear in a picture gallery dedicated to World War 2; once I've set it up it will also appear in the main menu. And that's about it for 1939 as the world descends into madness and motor cycles go to war. As usual, here's a selection of contemporary adverts, concluding with a batch that reflect the move from peace to war.



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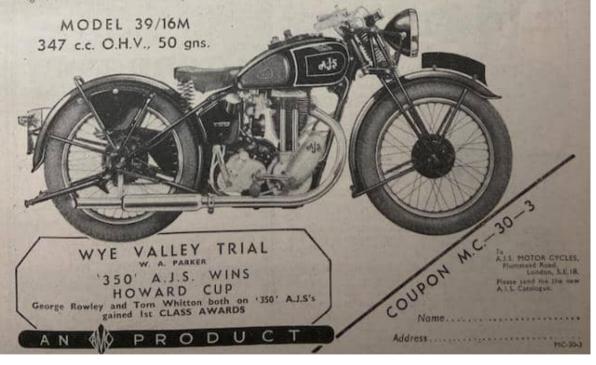
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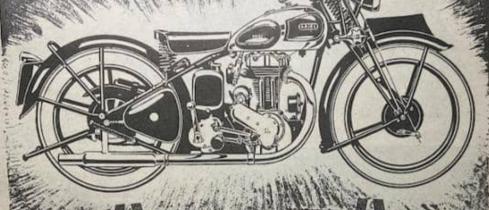


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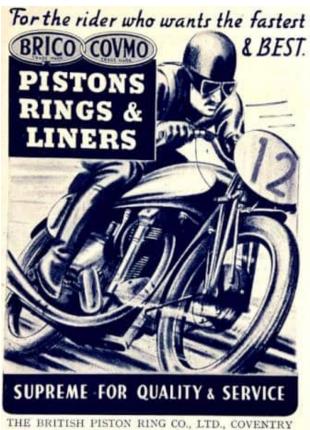
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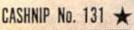


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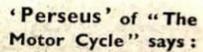
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1904 B.A., 100 K.V., 4-sp., M. Lyim, wheth, 1905 BOYAL ENFIELD, 200, 2-sic., dynamics.	\$10.10
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this wanted carries to Milyon, who	1
the MATCHLESS, top O'MY, and, the	ED 20
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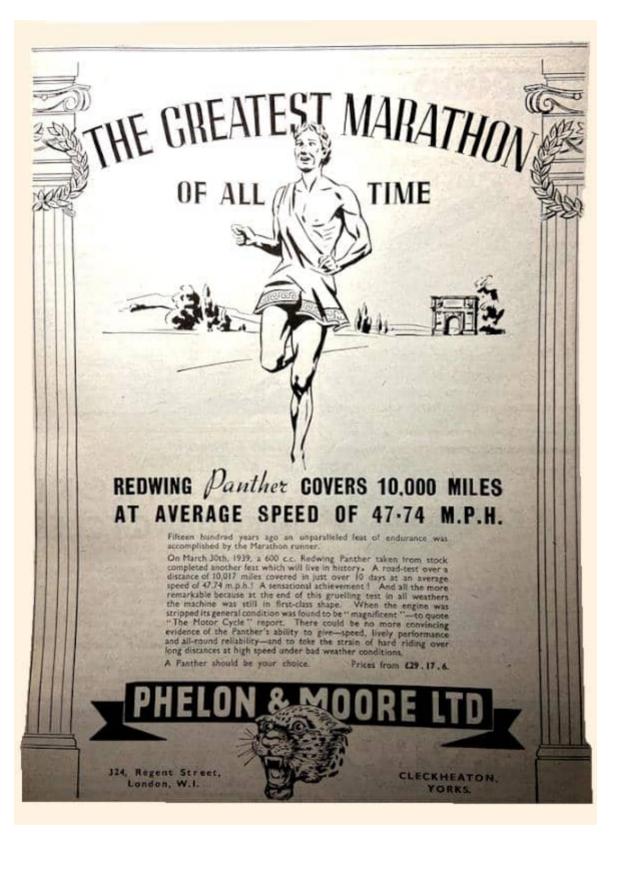


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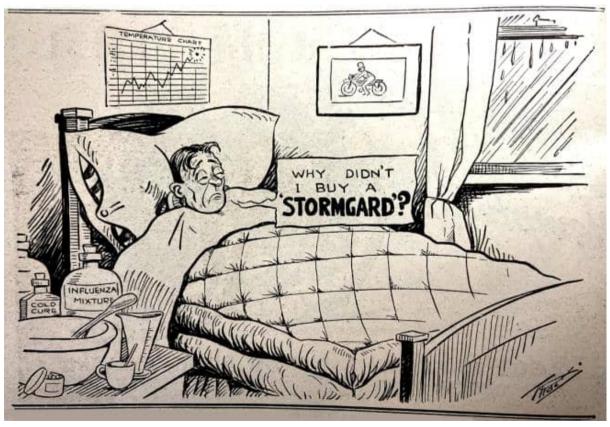
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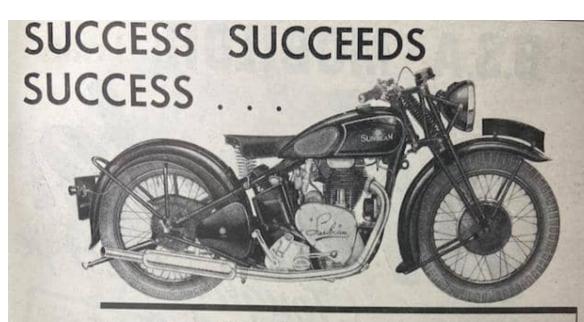
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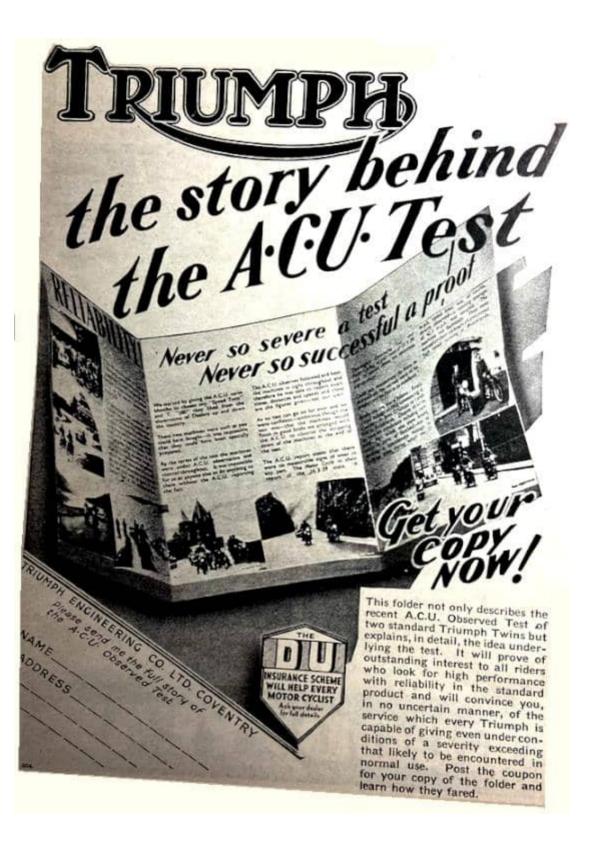
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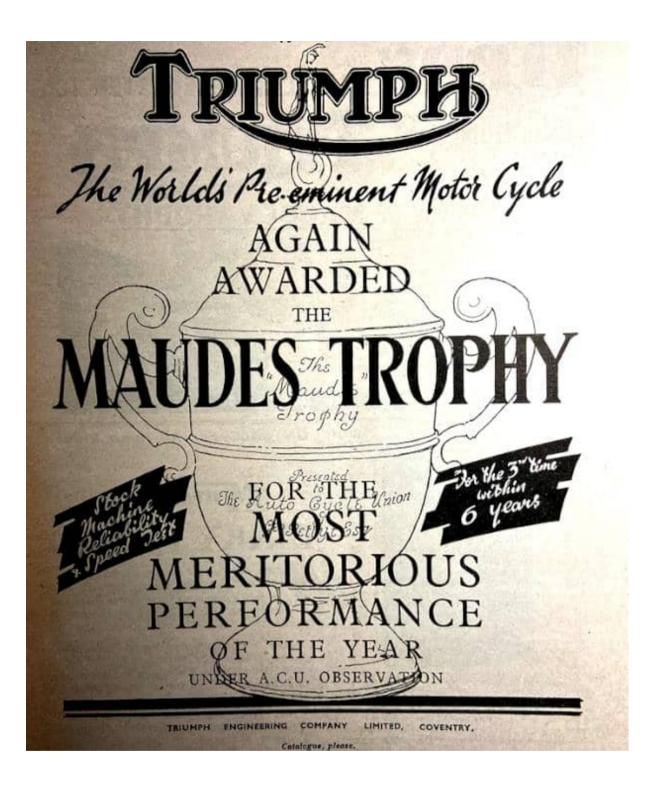
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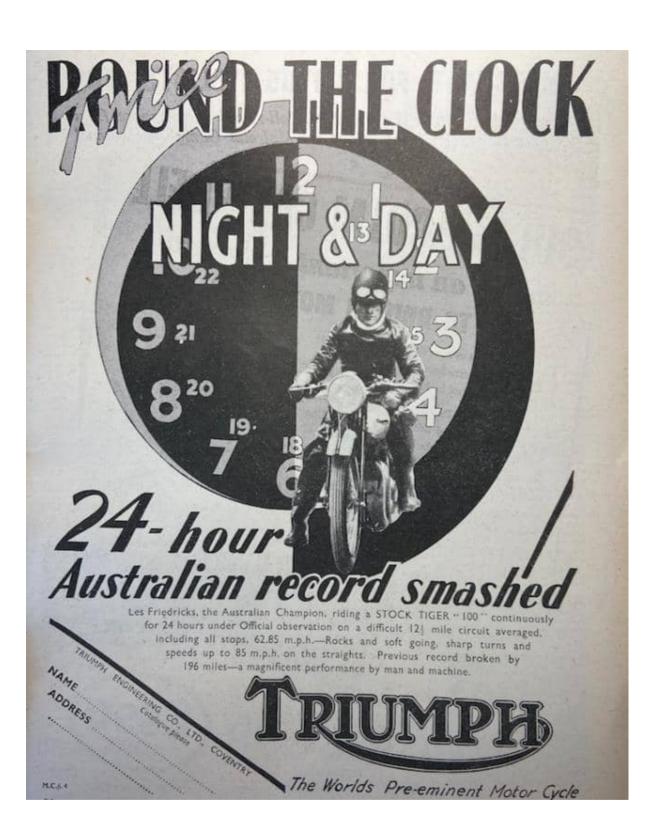


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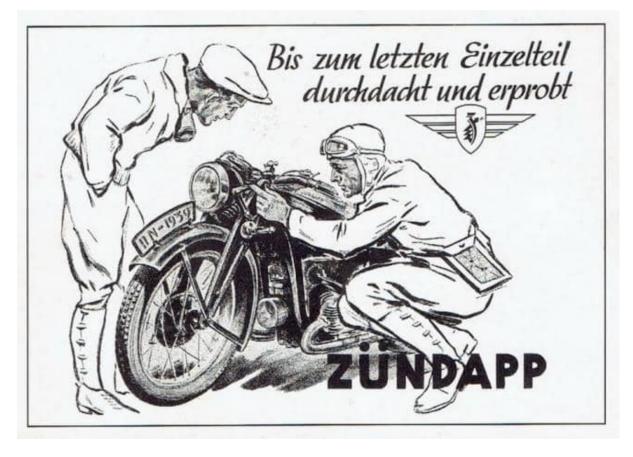
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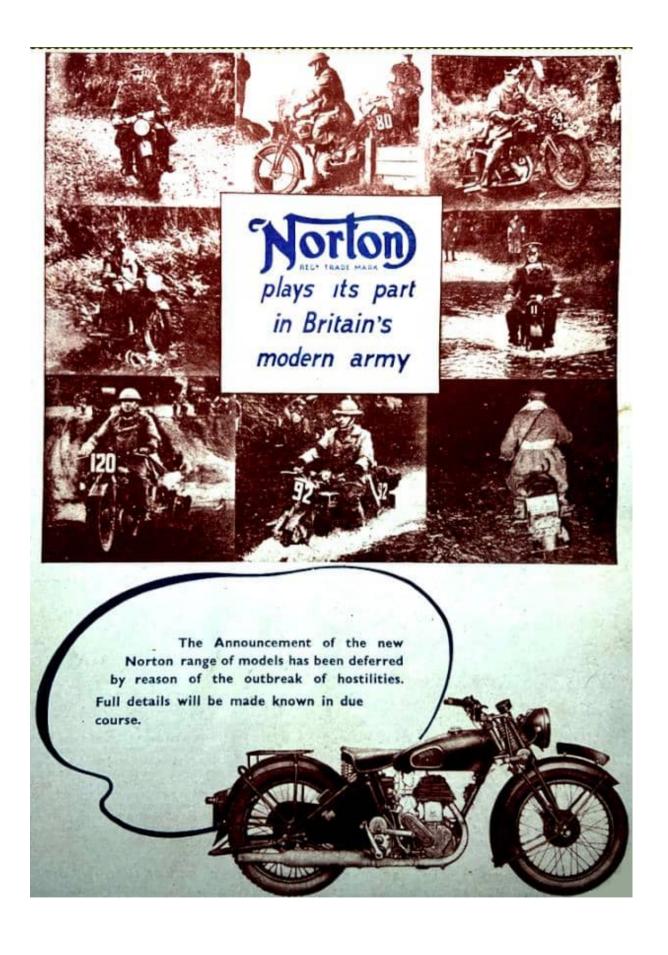
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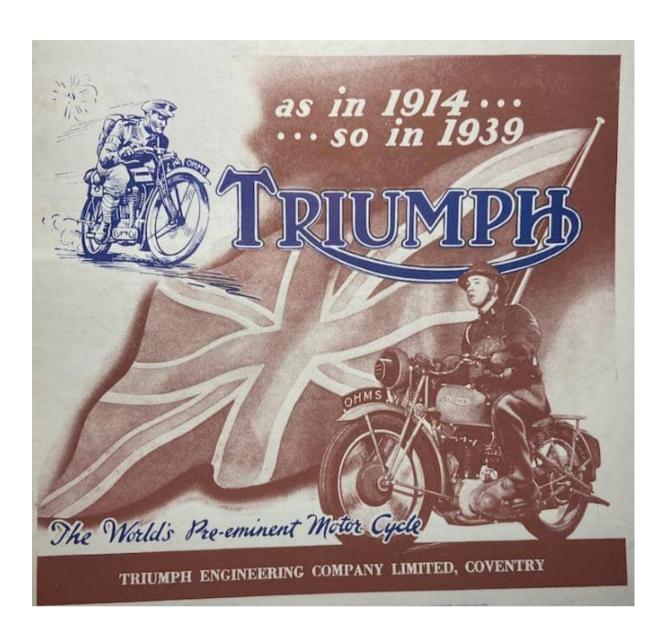
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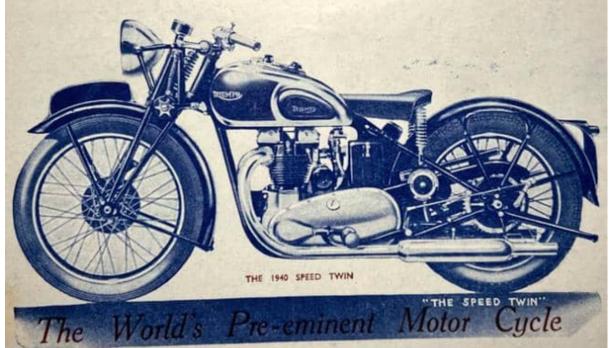




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For the present the whole of the resources of the Triumph organisation are devoted to the manufacture of motor cycles for the armed forces. In a few weeks from now it is hoped to publish particulars of our 1940 range and prices and a limited number of machines will be available for the ordinary rider. The usual high Triumph standard of quality will be maintained and, to meet present requirements, modifications are being made to offer extremely favourable petrol consumption on the various models.

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